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the
**MODERN
HOSPITAL**

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NUMBER 1

THE PROBLEM:

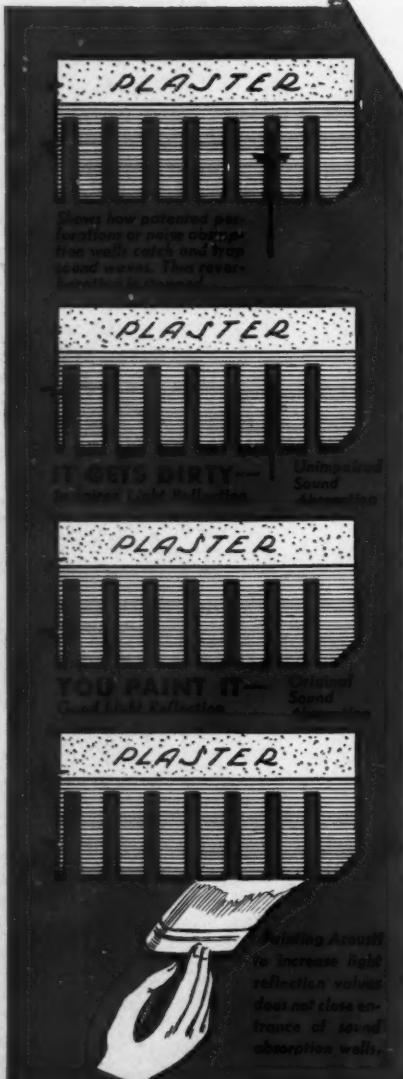
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Just in Passing—

IN EVERY part of the country hospitals are asking themselves and each other "What shall we do for nurses?" The question has two meanings and both are puzzling. The future supply of nurses and their education are speculative. In one collegiate school of nursing recently a physician on the faculty threatened to resign unless he were given the right to prepare the examinations. "You are asking my nursing students to pass examinations that my medical students couldn't pass," he declared. Probably he exaggerated the situation somewhat, though his reaction is similar to that of many hospital administrators.

On the other side the nurses have strong arguments. In our May issue Anna D. Wolf outlined the new curriculum which is being prepared by the National League of Nursing Education and in a letter published in the June number Effie J. Taylor disclosed the intent and philosophy of the revision as well as the need for it. Next month a hospital administrator will give the viewpoint of those who fear that the scientific part of nursing education is being advanced so fast that the nursing army will have too many generals and too few privates.

AN EDITORIAL in our May issue pointed out the danger to hospitals and other social institutions in the present lack of control over eleemosynary charters and agencies. If some effort is not made soon to cure the defects in present laws on the subject the public

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may take the matter into its own hands. And when the public turns surgeon it is likely to use a meat ax for a scalpel. Next month Rev. John W. Barrett, diocesan director of Catholic hospitals for Chicago, will present a thoughtful, temperate discussion of this whole problem.

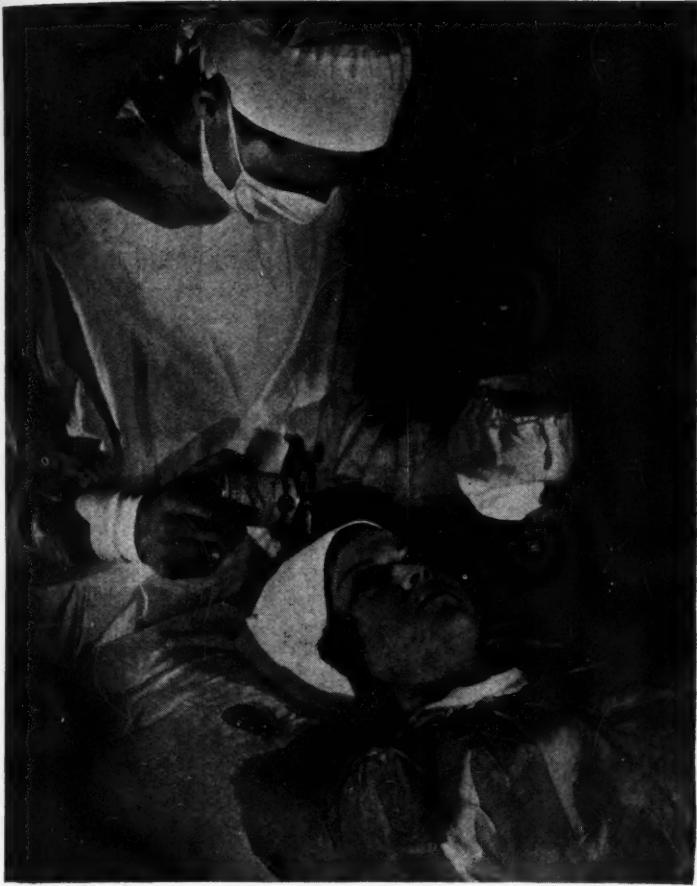
IS A government subsidy for the care of indigent patients the answer to our financial ills? This subject has been argued for years. Now comes Maurice Dubin to summarize the arguments and make a plea to end discussion and get action. His challenging article will appear next month.

TO WHAT extent should the special diagnostic departments of hospitals be expected to support themselves? Is it wise, from the financial or the scientific standpoint, to expect a balanced budget or a surplus from the clinical laboratory and the x-ray department? Assuming the answer is affirmative, will such a result be more likely to be achieved with a high or a low scale of charges? There are practical questions and next month they will receive a practical answer by the pathologist of the Ball Memorial Hospital, Muncie, Ind. That the answer is based on sound experience will be apparent to those who know the history of the Ball laboratory.

UNDER the unusual title "Sugar Bowls on Thursday" will be presented next month a novel article by the superintendent of an Iowa tuberculosis sanitarium. Its gentle irony will be a splendid tonic to anyone who administers a hospital.

HOW often do you take a look at the dishes in your hospital after they have gone through the dishwasher? Have you had a bacterial count made on them recently? Probably you will want to do both of these things immediately after reading the article on hospital dishwashing in the August number. Also you may be stimulated to make some experiments of your own directed toward improvement in dishwashing.

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NEXT month Mr. Laferriere brings to a close his series of articles on the control of insects, rodents and other pests. It has been proposed that the series be reprinted in a pamphlet for handy reference. If enough subscribers are interested this will be done. Prices will be made as low as possible and will, of course, depend upon the number of copies ordered. Please let us know if you are interested.

FLASHES FROM THIS ISSUE:

"It was a rude awakening when we learned that Santa Claus had run out of 'make-up-the-deficit' dolls for our hospital stockings, but it taught us at least, that even a charitable activity must be conducted in a business-like manner." *Page 48.*

"There seems to have grown up in mental hospitals a traditional attitude that denies the patient any understanding as to what constitutes good food service." *Page 57.*

"Any slip cover that is worth anything at all can be washed or dry cleaned over and over again and yet retain its original fit and color." *Page 55.*

"Let us hope that the more temperate minds in organized medicine may realize that the hospital has no desire to exploit the doctor and that only by mutual assistance can the extension of state controlled service be stayed and the voluntary hospitals be strengthened for the doctors who use them and the public who owns them." *Page 50.*

"The scientific administration of blood transfusion is one of the most highly technical procedures in medicine and surgery and should be so considered." *Page 53.*

"The first and most important consideration in the proper layout of the equipment is the relationship of one department to another." *Page 71.*

"Americans who are interested in communitywide planning for the care of the sick may find that the experience of Great Britain in providing institutional convalescent care points the way for us." *Page 74.*

"The only feasible method of food service for a large population that gives all the essentials of good service with a minimum amount of disadvantage is the cafeteria system." *Page 59.*

"On the continent of Europe about five-sixths of all hospital care is furnished in hospitals with salaried medical staffs." *Page 45.*

THE MODERN HOSPITAL

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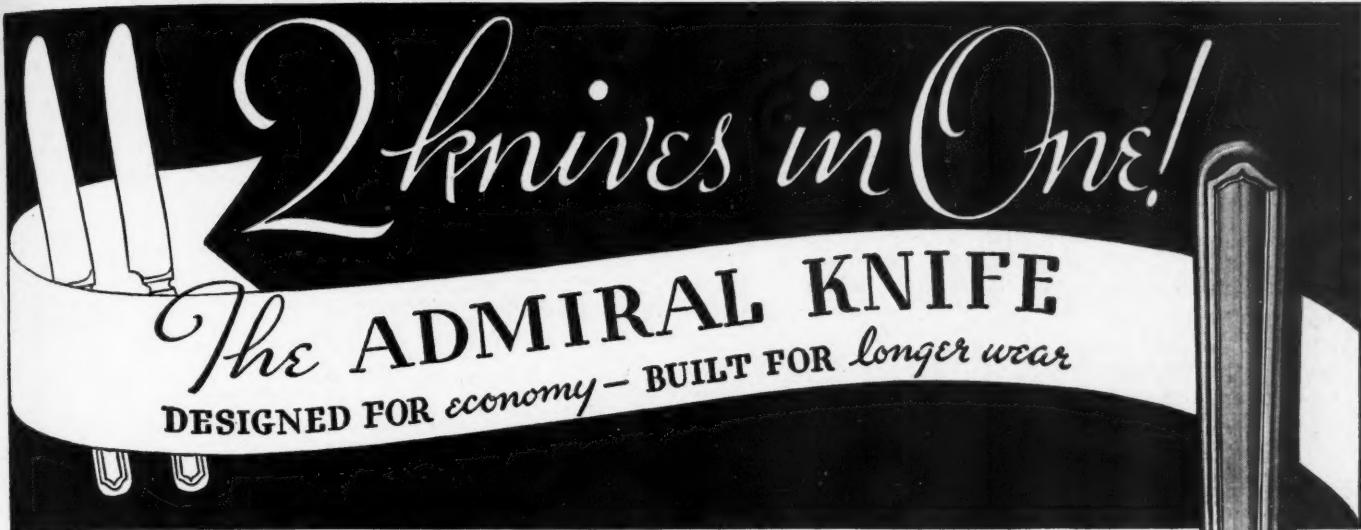
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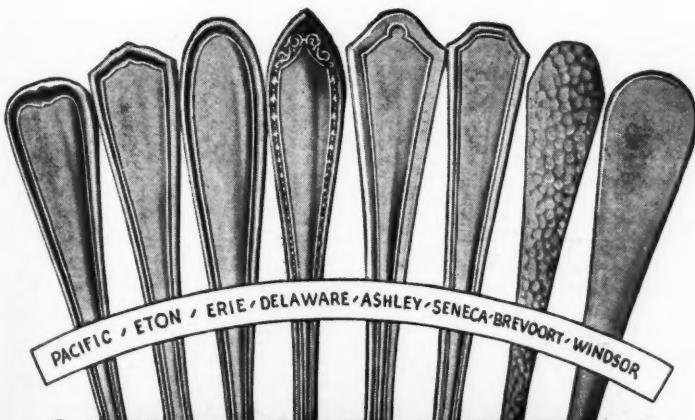


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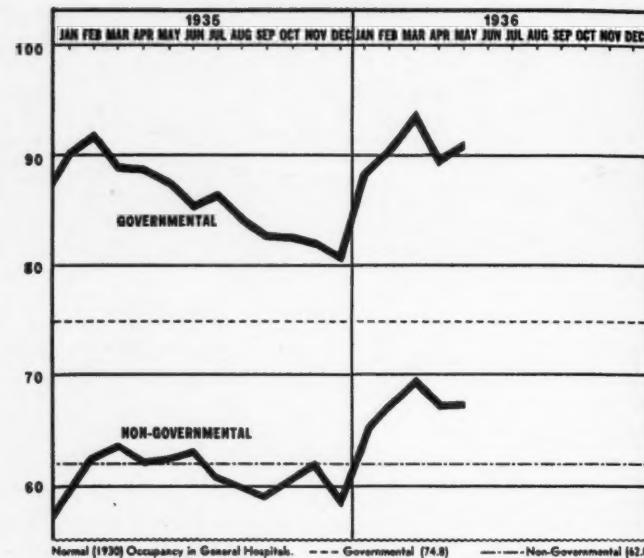
The splendid recovery in the business condition of voluntary general hospitals is revealed this month both in the occupancy figures and in the very large number of building and modernization projects reported.

Occupancy in the nongovernmental hospitals rose to 67.3 per cent in May. Compared with previous years this reflects a substantial and continuous rise from the low point in 1933, when for May the figure was 54.3. In government general hospitals occupancy continues at a high level, a preliminary figure of 90.9 being recorded for May.

The effects of the steady increase in occupancy over the last three years is now becoming evident in the building reports. For the period from May 23 to June 22, 82 projects were reported. Seventy-one of these reported the costs which reached a total of \$18,334,825. This is approximately double the highest monthly total reported since January, 1933, when this tabulation was begun and is nearly one-half as much as was reported for the entire year of 1935. Since January 1, 1936, a total of \$55,375,000 has been reported in hospital building projects.

The projects reported during the last month were divided as follows: 15 new hospitals of which 12 reported costs of \$1,468,595; 63 additions to existing hospitals of which 55 reported costs totaling \$16,716,230; three alterations costing \$125,000, and one nurses' home to cost \$25,000.

Industrial activity advanced for the third consecutive month during May, according to a report from the National Industrial Conference Board. Substantial increases were reported by the residential building, steel and electric power industries. These were only partially counterbalanced by declines in the automobile, nonresidential construction and coal industries. The volume of machine tool orders declined by about the usual seasonal amount but remained 62.2 per cent higher than during the same month of last year. Indexes of trade and distribution reflect a continued advance.



General wholesale prices as shown by the index of the *New York Journal of Commerce* rose slightly in the period from May 25 to June 23, the index moving from 78.6 to 80.5. Most of the change occurred in the first week. Grain prices, however, advanced sharply during the last week due to the Midwestern drought. The index rose from 73.6 to 80.7. General food prices were only slightly affected, however. Textiles advanced slightly in price and fuel and building materials remained unchanged. The price of drugs and fine chemicals, as reflected in the index of the *Oil, Paint and Drug Reporter*, dropped appreciably, the index going from 183.9 on May 25 to 178.8 on June 22.

The cost of living of industrial wage earners advanced again in May by 0.4 per cent.

OCCUPANCY FIGURES OF HOSPITALS IN VARIOUS STATES AND CITIES

Type and Place	Census Data on Reporting Hospitals ¹		1935										1936				
	Hospitals	Beds ²	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May		
Nongovernmental																	
New York City ³	68	15,194	75.0	72.0	66.0	62.0	62.0	67.0	69.0	66.0	71.0	75.0	77.0	77.0*	77.0*		
New Jersey.....	54	9,772	66.0	64.0	62.0	60.0	60.0	62.0	63.0	62.0	66.0	70.0	69.0	66.0	66.0*		
Washington, D. C.....	9	1,792	68.7	70.6	68.2	62.0	63.9	68.3	68.3	63.0	70.8	77.5	78.4	71.2	70.9		
N. and S. Carolina.....	103	6,328	64.6	66.8	65.7	66.3	65.7	64.4	63.3	59.1	63.9	67.1	68.7	64.9	65.0		
New Orleans.....	7	1,146	50.9	58.3	57.1	58.2	55.1	53.3	55.8	50.8	58.3	56.9	62.5	58.2	61.2		
San Francisco.....	16	3,098	66.4	67.4	62.4	63.9	63.9	66.7	70.2	65.2	71.9	75.6	71.7	72.3	70.6		
St. Paul.....	7	838	48.8	51.7	46.4	49.1	48.5	46.6	50.7	49.0	56.7	57.2	61.1	58.8	57.6		
Chicago.....	25	4,186	55.9	54.7	54.5	53.8	53.6	54.7	54.9	52.8	56.5	61.4	63.9	63.1	64.6		
Cleveland.....	7	1,080	65.7	63.4	63.2	63.4	58.5	61.7	62.3	60.6	66.5	68.3	72.2	72.9	73.6		
Total ⁴	296	43,434	62.4	63.2	60.6	59.9	59.0	60.5	61.9	58.7	64.6	67.3	69.3	67.1*	67.3*		
Governmental																	
New York City.....	17	12,042	105.6	100.4	103.6	98.2	91.7	85.8	86.5	87.3	95.1	100.2	98.2	95.8	100.4		
New Jersey.....	5	2,122	84.0	77.0	79.0	79.0	76.0	84.0	78.0	76.0	80.0	84.0	84.0	81.0	81.0*		
Washington, D. C.....	2	1,596	69.4	67.4	68.4	69.5	69.5	62.9	60.4	60.4	62.9	71.4	73.3	68.9	66.7	62.9	
N. and S. Carolina.....	13	1,358	68.6	68.1	68.7	72.3	68.0	66.9	65.4	63.8	71.4	73.2	75.8	71.8	73.0		
New Orleans.....	2	2,227	132.8	138.8	149.0	143.1	140.9	138.5	137.4	127.8	130.0*	141.3	169.8	146.2	164.2		
San Francisco.....	3	2,255	77.3	72.3	72.0	71.3	79.5	76.8	79.1	81.1	83.5	83.4	79.2	81.2	80.9		
St. Paul.....	1	850	75.2	74.5	67.3	63.4	61.5	65.0	68.6	66.6	94.9	85.4	84.5	82.7	80.0		
Chicago.....	2	3,730	86.0	84.5	83.5	80.5	80.4	81.7	80.2	79.5	83.3	86.0	87.9	87.2	86.2		
Total ⁴	45	26,180	87.4	85.4	86.4	84.0	82.6	82.4	81.9	80.6	88.7*	90.8	93.5	89.6	90.9*		

¹Insofar as possible hospitals for tuberculous and mental patients are excluded as well as hospital departments of jails and other institutions. The census data are for the most recent month. ²Including bassinets, in most instances. ³Includes only general hospitals. ⁴The occupancy totals are unweighted averages. These averages are used in the chart above. *Preliminary report.

HERSHEY CHOOSES LINOTILE

Linotile floors brighten Visitors' Room of Hershey Chocolate Corp., Hershey, Pa. Colors are Oyster, Travertine, and Light and Dark Walnut, in 30" x 36" tiles. Walls and pilasters are Armstrong's Pine and Walnut Linowall. Sound-absorbing ceiling is Armstrong's Corkoustic. More than 32,000 sq. ft. of Linotile; 45,000 sq. ft. of Corkoustic; and over 1,000 sq. yds. of Linowall were used in this building.



*Linotile floors like this are
DURABLE...QUIET...ECONOMICAL*

CHOOSING the best type of flooring is easy if you adopt the standards that the Hershey Chocolate Corporation used in selecting Armstrong's Linotile for its Visitors' Room.

First, the floor had to be quiet and comfortable—yet exceptionally durable to withstand constant traffic. It had to be colorful and cheerful. And it had to be easy and inexpensive to keep bright and sanitary.

Handlaid floors of Armstrong's Linotile met every requirement. In Linotile, the rich plain or marble

colors run through the full thickness of each tile. They do not wear off; and simple washing and waxing keep them fresh and beautiful for years.

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Choosing Floors for Hospital Service

By G. C. DENEBRINK

Director, Armstrong Architectural Service Bureau

IN MOST modern hospitals, flooring materials must meet the following requirements: (1) easy, inexpensive maintenance; (2) quietness; (3) comfort underfoot; (4) durability; (5) beauty and cheerful coloring; (6) reasonable cost.

Most floorings offer one or two of these qualities, but usually in combination with certain disadvantages, such as hardness or noisiness. Only in resilient tiles or linoleum can all or most of the desirable characteristics be found.

Linoleum, already well established as a flooring in hospitals, needs little mention here. Resilient tiles, however, deserve treatment because there are several types, each offering special advantages.

Linotile, which is manufactured in almost the same way as linoleum, is usually selected where durability is the primary requirement. It is twice as resistant to indentation as battleship linoleum yet is comfortable, quiet, economical, and easy to maintain. Available in beautiful plain and marble colors, it is suitable for halls, operating rooms, and private rooms.

Cork Tile should be chosen where quiet and comfort are first in importance. Possessing good durability, and attractive in its rich "cork brown" coloring, cork tile absorbs sounds and cushions footsteps.

Rubber Tile, also available in many plain and marble colors, is often selected where a high-finish floor is desirable, as in visitors' rooms, dining-rooms, and executive offices. In choosing rubber tile, the buyer should make sure that the



Ward in Buffalo (N. Y.) Children's Hospital with Accotile floors in marble colors, by Armstrong Cork Products Company.

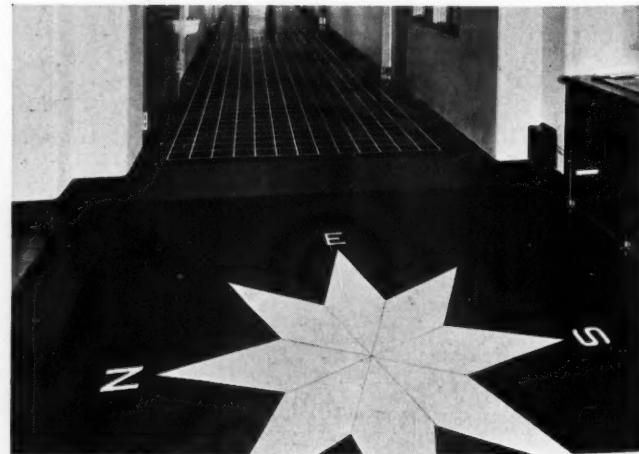
material is made with filament reinforcements, which multiply the life of the floor and add little or nothing to the cost.

Where resilient floors are to be installed in basements or over concrete that is in direct contact with the ground, asphaltic tile (*Accotile*) should be selected, because it is the only type of resilient flooring recommended where dampness is likely to be present. Accotile is low in cost and available in rich colorings.

Hospitals or hospital architects are invited to call upon the Armstrong Architectural Service Bureau, which is maintained by Armstrong Cork Products Company, of Lancaster, Pa., for recommendations on the best type of resilient flooring for special requirements.



Cork Tile floors in Elizabethtown, Pa., Hospital for Crippled Children. Note figures cut from cork. Armstrong Cork Products Company.



Corridor in New York Hospital. Compass design in Linotile floor. Photo, Armstrong Cork Products Company.

WORKING SIDE BY SIDE

Grandpa..Dad..Son

STEAM-JACKETED KETTLES



*What this proves to you about "Wear-Ever" Aluminum's
LASTING ECONOMY*

● This is an unretouched photograph, taken in just one of America's famous food plants (name on request). The rows of rivets and design prove the vintage of each steam-jacketed kettle. We could fill pages with the romance of metallurgy that has made Aluminum so tough, so enduring—but the photograph speaks louder than words.

The "grandpa" kettles, installed years back, gave such superior service, saved so much money, that they sold the next generation; then "grandpa" and "dad" kettles

both dictated "'Wear-Ever' again!"—so the "son" was installed. Three generations of kettles are now conducting heat faster, uniformly (no hot spots) and are protecting food quality with their rustless, silvery purity. If YOU want this toughness, lasting durability and all the other *plus* advantages for Aluminum write for catalog and costs. Address THE ALUMINUM COOKING UTENSIL COMPANY, Desk G-440, New Kensington, Pennsylvania.
(Offices in All Principal Cities)



"Wear-Ever" ALUMINUM
THE STANDARD: WROUGHT OF EXTRA HARD, THICK ALUMINUM

The Editor Talks It Over

• If your hospital suffers from an annual plague of mosquitoes and flies, it may be the result of failure to anticipate this annual visitation and to take adequate preventive measures. A survey should be made of the hospital buildings and grounds to see that there are no places in which these insects may multiply.

Look over little pools of water, make a survey of the roof gutters and the drainage system of the grounds, and study the neighborhood for manure piles, defective garbage cans and all places that will breed or attract flies. Go over the screens and the screen doors carefully and see that they fit properly and have no holes through which these insects might gain entrance. Sometimes it is necessary to install electric fans which will blow flies away from the door.

It is not the purpose of these paragraphs to tell just what shall be done and how to do it, but to stimulate interest in the manner of fly and mosquito prevention. The presence of these insects in a hospital is a reproach to the management. It is a bad example to the community and, worst of all, it is a positive menace to the health of patients and personnel. If the hospital will take an active interest in keeping itself free of these noxious vermin, it will stimulate community public health work.

• Most hospital executives are far from skilled chemists. Floors stained with mercurochrome and iodine are likely to continue to present an unsightly appearance unless an ingenious nurse or an unusually alert foreman of cleaners steps in. The expense of dyes employed in surgery and medicine does not cease with their original purchase price. When a physician ruins a sheet or a spread costing a dollar or more by carelessly upsetting a mercurochrome bottle or by gesticulating with a swab saturated with acriflavine he thereby raises the cost of the drugs which he is using to an exorbitant figure.

Few linen room managers are expert in removing coffee stains from hospital napkins and table cloths or dye stains from surgical linens. Even blood stains once they are fixed by

washing in hot water are difficult to remove. The use of iron in dispensaries and hospital wards is likely to damage sheets, towels and pillow cases. Incidentally, the best decolorizing agent for iron is a solution of potassium fluoride which is available at any laundry supply house. After the use of this solution, washing with clear water completes the process. If money is to be saved in the removal of stains any casual approach to the problem is not likely to bring results. The superintendent is the logical person to develop this type of economy.

• Deep in the substream of hospital life there is always an Old Dependable, who is always on the job, who never gets out of gear with the machinery of administration and who finally comes to be taken for granted much as are the forces of nature. He works as reliably, accurately and quietly as an electric chronometer; installment houses never write letters about him to the superintendent; he never asks for a raise or a promotion; he has a savings account and rears his family to the ideals of a day's work for a day's pay; he is a good, steady citizen who never sees the traffic court, makes a public speech or writes a letter to the papers. Good times, bad times, gang administrations and reform administrations, peace times or war times, he can be counted upon to do his duty without panic or hysteria. He becomes the one practically irreplaceable individual in the organization, respected and trusted by all, for he is Old Dependable.

• Into the busy accident ward of a large urban hospital came a little girl of six. She did not seek treatment for herself but for her much beloved shaggy spaniel which had "hurted" his foot. The intern, older in understanding and tact than his years would indicate, gravely accepted the new patient and examined and treated the injured paw as carefully as if it had been the foot of the hospital's most prized patient. Daily he dressed the wound while the anxious little girl awaited without. When the "patient" was declared cured the thanks "from both Bubbles and myself" which were left behind as the happy pair de-

parted more than repaid the doctor for his efforts. The public expects much of its hospitals. Pliability, understanding, graciousness and efficiency are splendid traits. This intern early beheld a lofty vision of institutional service. He maintained the faith of a little child in the hospital as a safe place to go when one is in trouble.

• To some the youth of the genus homo are known as boys and girls and collectively as children. In pediatric language "kiddies" seems to be a favorite descriptive word. The jargon known as baby talk is apparently considered by certain types of physicians as being a necessary attainment for him who treats only children. Although the neurologist is inclined to be curious nervously, he rarely attempts in his conversation with his patient to simulate the drawling speech of the paretic or the tremulous hallucinations of the alcoholic. It is probable that pediatric language may be more pleasing to the parents than to the children, although the perception of an unfriendly personality rarely escapes even the youngest. It is interesting to note the effect of the practice of any type of specialty upon the practitioner.

• Are the interns in your hospital getting out of their period of service nothing excepting a little technical education and a modicum of manual training? Are they learning the real spirit of usefulness to the sick? Are they being taught the place of the hospital in the community? Have they been brought face to face with the public health responsibilities and opportunities of hospitals? Are they going out with the stamp of men who have a broader and a bigger function than the mere pursuit of a livelihood?

These young men and women are at the crossroads in their careers. Their minds are as wax to impressions. With relatively little effort they can be trained in a manner which will materially advance their usefulness to the hospital field and the community. They will practice their professions largely as they observe their chiefs treat the sick during their internship. Usually a good visiting staff begets a good intern service.

Looking Forward

The American Foundation

THE American Foundation is a nonpartisan, nonpolitical group which apparently is endeavoring to learn the truth about existing conditions affecting the medical care of the public. The names of those comprising its governing body and committees command respect and confidence. Largely by the questionnaire method, it is obtaining from physicians who have been actively in practice for longer than twenty years their opinions concerning problems of hospitalization and community care.

A cross section of opinion from such seasoned practitioners of medicine should help point the way toward a solution of the many perplexing difficulties which confront both the patient and the doctor. This effort has received the tacit if not official approbation of the American Medical Association and of many county and state medical organizations.

It is refreshing to encounter a research activity of this nature, which is being approached in such a calm, judicial and apparently unbiased fashion. Altogether too much effort and time have been wasted on the part of all concerned in entertaining suspicions as to the good faith of those who hitherto have attempted such studies.

Who May Practice in the Hospital

HAS the governing board a legal right to exclude cultists and other undesirables from practice in the hospital?

This question arises frequently throughout the hospital field. That it has not been settled in all states is indicated by the fact that the courts are still being asked to decide the question. In a recent issue of the *American Medical Association Bulletin* the problem received forceful and comprehensive treatment.

In the private hospital it is concluded that the board of trustees possesses the authority to exclude cultists from the institution under its care. This statement may, however, be altered by the specific provision of a trust or gift and, of course, at the discretion of the board itself. In the gov-

ernment hospital, the legal situation is slightly different. Cultists contend that because they are taxpayers they must be permitted to practice in the institution which they assist in supporting.

But the law apparently differentiates between the property rights of a taxpayer and those rights which affect the health and lives of others. Hence, the board of trustees of such an institution may decide what in their judgment is the safest practice to follow in the care of the sick and indigent. Even when statutes limit the free action of the boards of government hospitals in respect to the exclusion of cultists, more than one jury has protected the cause of the patient. The high standing of the hospital staff is the business of the board of trustees. It and it only may close the institutional doors to the quack and the pretender.

What Is an Anesthetist?

SINCE the days of Morton and Long, surgical anesthesia has usually been induced by the inhalation of a gaseous agent — ether, chloroform, nitrous oxide or ethyl chloride. Then came ethylene and cyclopropane.

Today there is a strong trend toward the injection method of anesthesia. Since Jonnesco and others two and a half decades ago popularized spinal anesthesia, the surgical use of this method has increased rapidly. In many outstanding institutions more than one-half of all major operations are now performed by the aid of spinal anesthesia. More and more tonsillectomies in the adult are being performed with a local injection of novocaine which has replaced the more dangerous cocaine.

The training necessary for the modern anesthetist, therefore, has undergone a great transformation in the past decade. If she be a nurse, the administration of nitrous oxide and oxygen, ether, ethylene and cyclopropane still come within her province. She rarely, if ever, is expected to concern herself with the use of either a local or a spinal anesthetic. This is the work and the responsibility of a physician.

State board requirements as to the number of

anesthesias necessary in the training of hospital interns must be altered in the light of the above developments. Perhaps the profession of anesthetist will now exert a new and more attractive appeal to physicians so that they will seriously prepare themselves for its practice. Today doctors not choosing this work as a specialty rarely are as efficient anesthetists as are nurses who have devoted much time to acquire a high degree of skill in the administration of an anesthetic. Until physicians seriously undertake the business of becoming skilled anesthetists, the administration of gaseous anesthetics usually will be safer in the hands of the highly trained nurse specialist.

A Medal for Valiant Behavior

NATIONS reward their soldiers who perform valiant deeds without thought of the risks to their own lives. During times of peace catastrophic occurrences on land and sea reveal qualities of heroism in unexpected places.

Daily throughout the hospital field there develop institutional or individual crises in which the quick thinking of some member of the hospital's personnel saves life. Moreover, this ability to make decisions unhesitatingly and to follow them at once with decisive action is not confined to the professional group in the hospital. It may be found among the highest or the lowest. Curiously enough the behavior of the individual can never be forecast until the emergency actually develops.

These institutional incidents which display the stuff of which heroes are made are so varied in nature that they defy classification. A fire, an explosion, an impending suffocation by choking, or a homicidal attempt may in a twinkling transform a plodding and ignorant orderly, an unlettered ward maid or an inexperienced and retiring probationary nurse into a person of blazing heroic stature.

The story of these occurrences is never written. When their great hour is over the individuals return to their hundrum daily tasks often little conscious of their splendid service. They ask no reward. No medal of any composition or dimension can recompense them. But, while self-forgetfulness is common in hospital workers, unusual evidences of valor should not go unnoticed. It is just and proper for such acts to be publicly acclaimed by the board of trustees in annual meeting with perhaps the bestowal of the hospital medal for valiant behavior.

The Next Generation

WE APPEAR to be living in an age of procrastination. Blithely we pass on to another generation the day of reckoning. Hospitals have not remained untouched by this heresy. Rather than seeking new sources of earned income and rigidly curtailing expenses within the limits of income, boards of trustees are wont to meet deficits by withdrawing capital funds. There can be but one outcome to such a policy if it is followed long enough. That is financial insolvency.

To whittle at endowments too often in meeting deficits is precarious. To be sure, when yearly gifts to the endowment fund greatly exceed deficits this policy may be employed as an emergency measure. But to allow a deficit to grow year after year, is to pass on an unwelcome and undeserved heritage to those who in the future must carry on hospital responsibilities.

It is also a haphazard and unsatisfactory method to wait until the annual meeting and then call upon generous board members to meet the deficit personally. Their gifts as well as the gifts of others interested in the institution should be budgeted in advance and obtained through the year. Time and fortunes change. Trustees come and go. Generosity waxes and wanes and deficits which are easily met today become economic specters tomorrow. If gifts are not obtained as budgeted the expenses should then be cut accordingly. The only sound method by which to conduct the hospital is to balance the budget yearly, to grow as resources grow, to retrench as income diminishes.

A Grave Accusation

"O VERBUILDING and extravagance and in some instances maladministration have brought these enterprises into financial difficulties. Free medical care to great numbers of persons above the need of charity is part of the disturbing situation. Instances can be cited where some hospital corporations are buying and selling professional service for a profit."

These charges recently appeared as a part of a report of the house of delegates of the Medical Society of the State of New York. They challenge the fair play spirit of the hospital. They intimate that the hospital is deliberately competing with the doctor for practice to the disadvantage of the latter. Whether these statements apply only to New York State and are not gen-

erally true in regard to other commonwealths is beside the question. The conditions in New York State are probably in no way dissimilar to those of other localities.

That some hospitals have overbuilt to their sorrow is true. Some are maladministered and some no doubt as a part of these mistakes in conduct fail to investigate properly the financial standing of free patients before they are accepted as such. These constitute errors of judgment and of omission without deliberate attempt to be unfair.

Instances are not on hand to prove, however, that hospitals in general are deliberately endeavoring to deprive physicians of the just and due reward for their efforts. If such exist they deserve whatever retribution overtakes them.

The regrettable angle of this contest is that the interests of hospitals and physicians are so closely interwoven that neither need offend the other. Wherever a situation like this arises some attempt at arbitration and correction of existing faults should be made. Perhaps representatives of national medical, surgical and hospital associations could act as arbiters. Certainly the public press is hardly a suitable medium by which to try the case.

Hospitals and physicians are not rivals. The very nature of their motives and endeavors forbids this. Rather are they colleagues, comrades at arms, partners in the business of treating the sick.

Safeguarding Progress

IN REFERRING to public welfare several decades ago, a noted railroad man is frequently quoted as having said, "The public be damned." The folly of this idea in modern life is now self-evident.

But the converse can sometimes become just as foolish. Certain persons in social welfare work, who have never had to assume specific long run responsibility for the maintenance of institutions, rush about with academic enthusiasm trying to meet every social need. They become so enamored with the idea of serving the public that they give no attention to the instrumentalities through which the public is served.

In the hospital field we have astonishing examples of this attitude. Some individuals are so anxious to provide good hospital service to the indigent at minimum rates that they give no thought to the welfare of the hospitals. That voluntary hospitals must be nourished if they

are to render service to the indigent or to anybody else is no concern of theirs. Their attitude is not "The public be damned" but "The public's welfare agencies be damned."

Granting that public service is the end and purpose of voluntary hospitals and granting also that this point is sometimes clouded over in the minds of administrators and trustees distressed by the financial needs of their institutions, the fact remains that the problem is twofold. Undue emphasis on either aspect will defeat the purpose. Those who continue to demand that voluntary hospitals render the largest possible volume of service to the public at the smallest possible return are killing the goose that lays the golden eggs. Hospitals must have reasonable income if they are to keep abreast of the advances of medical science.

It is as important to guard, nourish and cultivate the means of social welfare as it is to preach a concept of using these means for social purposes. No matter how high one's concepts, they are bare and fruitless if the means for achieving them have been destroyed.

A Simple Lesson

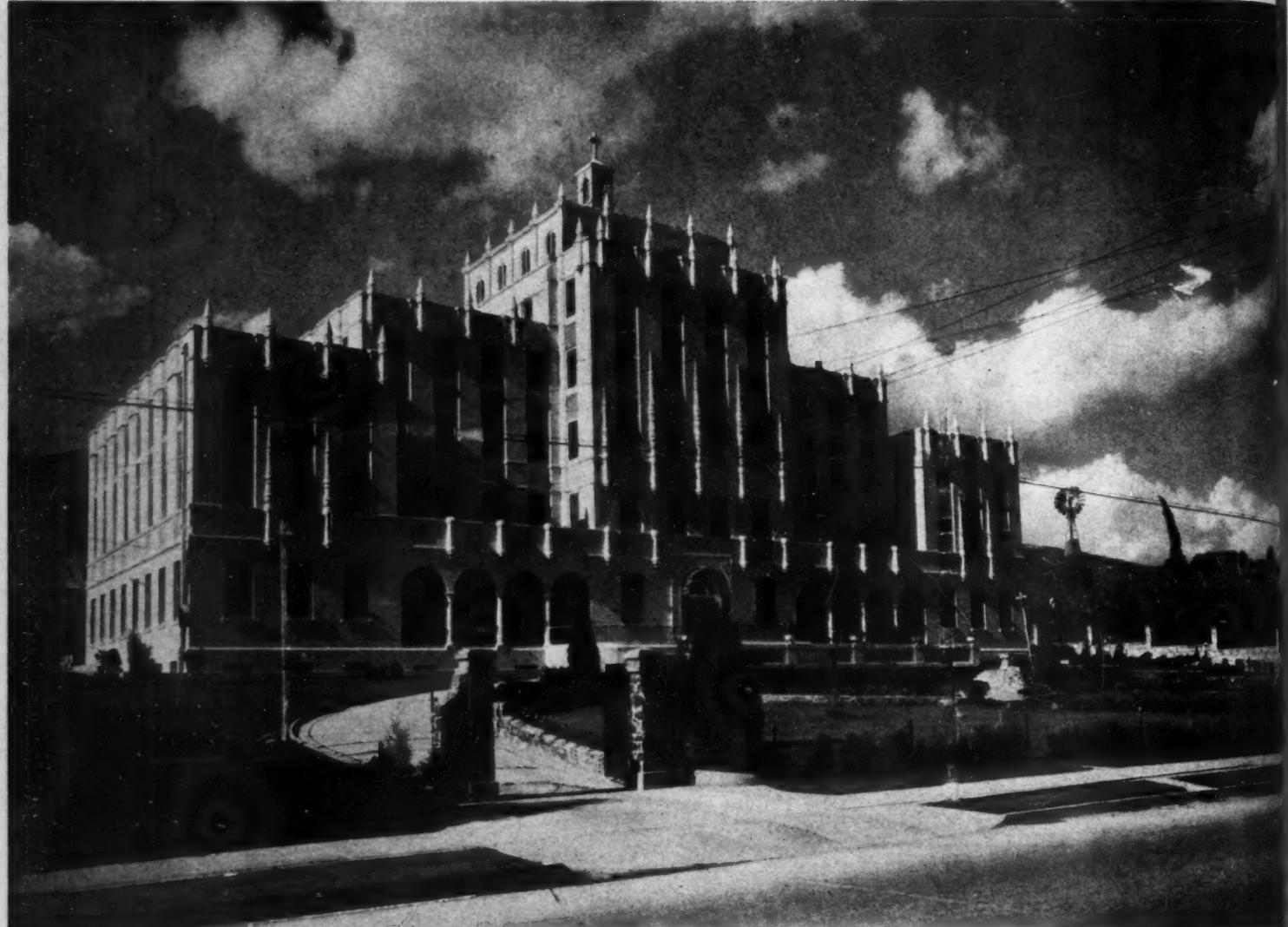
TWO cities in the Northwestern part of the United States present contrasting pictures of hospital facilities. One has splendid progressive hospitals, on their toes to give the public the best of service and to provide the doctors with modern facilities.

The three principal hospitals in this community, one Protestant, another Catholic and the third a municipal institution, work in close harmony. No important public action is taken by any of the hospitals without notifying and consulting the others. They are well patronized and their patronage enables them to keep their facilities up to date.

A few hundred miles away is another slightly smaller city which also has three hospitals. Here, however, the institutions are constantly competing with one another. Rates for service are so low that none of the institutions has been able to develop its services properly. In one hospital thirty or forty mothers and their children are housed in a wooden building that would burn like tinder.

When will all hospitals learn that the public is not best served in a state of uncontrolled cut-throat competition but that sane cooperation, provided it is seasoned with due regard for the public welfare, is best for the public as well as the hospitals?

Muguerza Hospital is located at the foot of a hill which protects it from the north. The building overlooks the beautiful Sierra Madre chain of mountains. The gardens have been landscaped in a simple and attractive manner. The site is about 100 feet higher than the downtown district.



The information desk is in the main lobby on the first floor. A striking architectural decoration and niches give dignity and importance to this room where the patients get their first impressions of the hospital.



There are sixty-three private rooms in the hospital, forty of which are grouped on the third floor. The furniture has a mahogany finish and dainty window curtains and bedspreads give the rooms a homelike appearance. A modern call system for ordinary and emergency calls is installed for patients' use.

In This, Our First, Year . . .

By JOSE F. MUGUERZA

General Manager, Hospital Muguerza, Monterrey, Mexico

THE Muguerza Hospital, Monterrey, is the first hospital in Mexico to be built according to modern developments in the science of hospital construction. The building is five stories high, fire resistive, of reenforced concrete. It is located at the foot of a hill looking south over a beautiful range of mountains.

The population of Monterrey is 135,000. Patients come to the hospital from all over the northeastern part of Mexico, especially from the neighboring states of Coahuila and Tamaulipas. A few are from the United States, having come to Monterrey for a change of climate, for rest cures or because it is cheaper to go to a hospital there than in the States on account of the exchange rate.

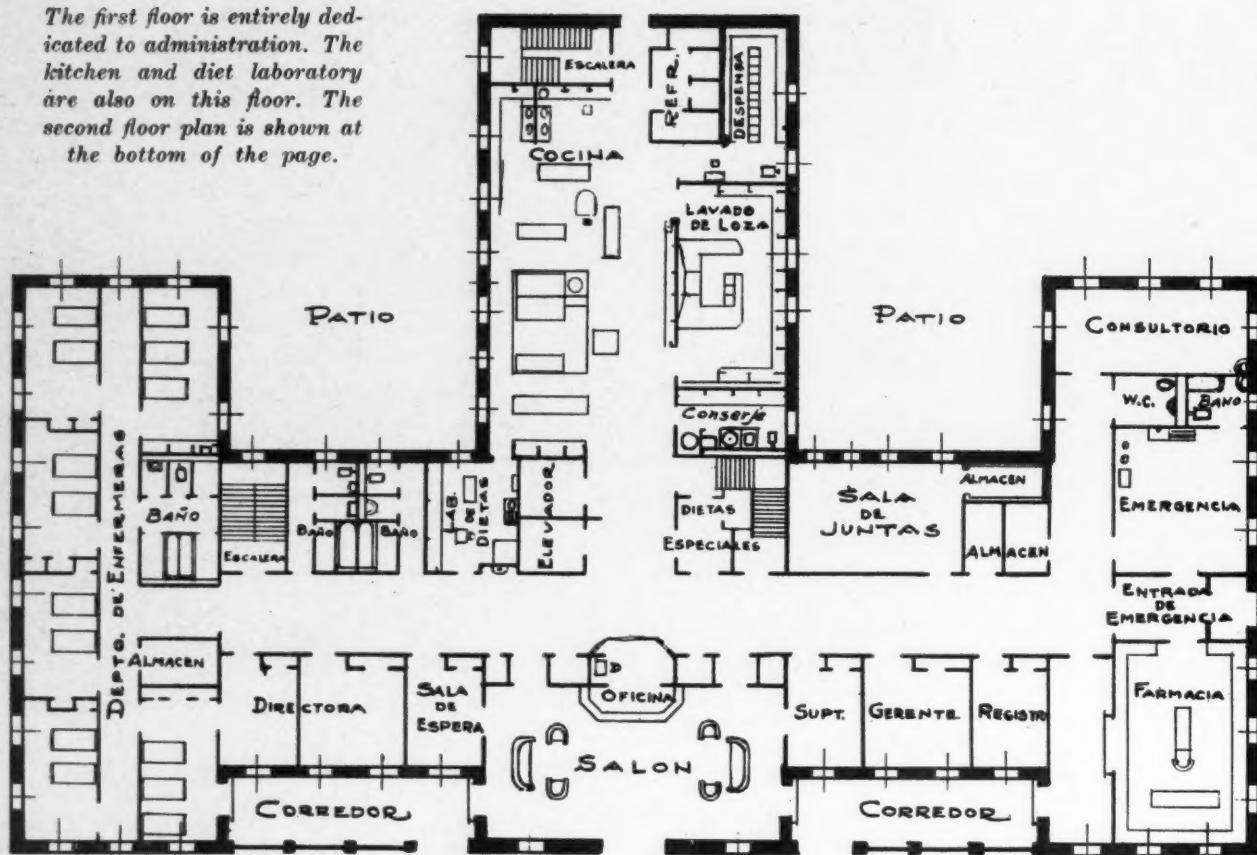
The basement floor is 5 feet below ground level. Here are the laundry, electrical equipment, boilers, nurses' dining and lounging rooms and the autopsy room. There is enough space to build some

Fighting ignorance on the part of the people and indifference on the part of its doctors, this 88-bed hospital, which was erected a year ago at a cost of \$200,000, looks back over its first year and feels, rightly, that it has done well and gone far

beautiful wards, in the future, for the accommodation of very poor people.

The first floor is entirely dedicated to administration, with its attractive reception room; the offices of the superintendent, general manager, secretary and superintendent of nurses; the record room; the accounting department; resting rooms for head nurses; emergency and doctors' examination room and the pharmacy. The kitchen, the diet laboratory, dish washing department, refrigerating rooms and pantry are also located on the first floor.

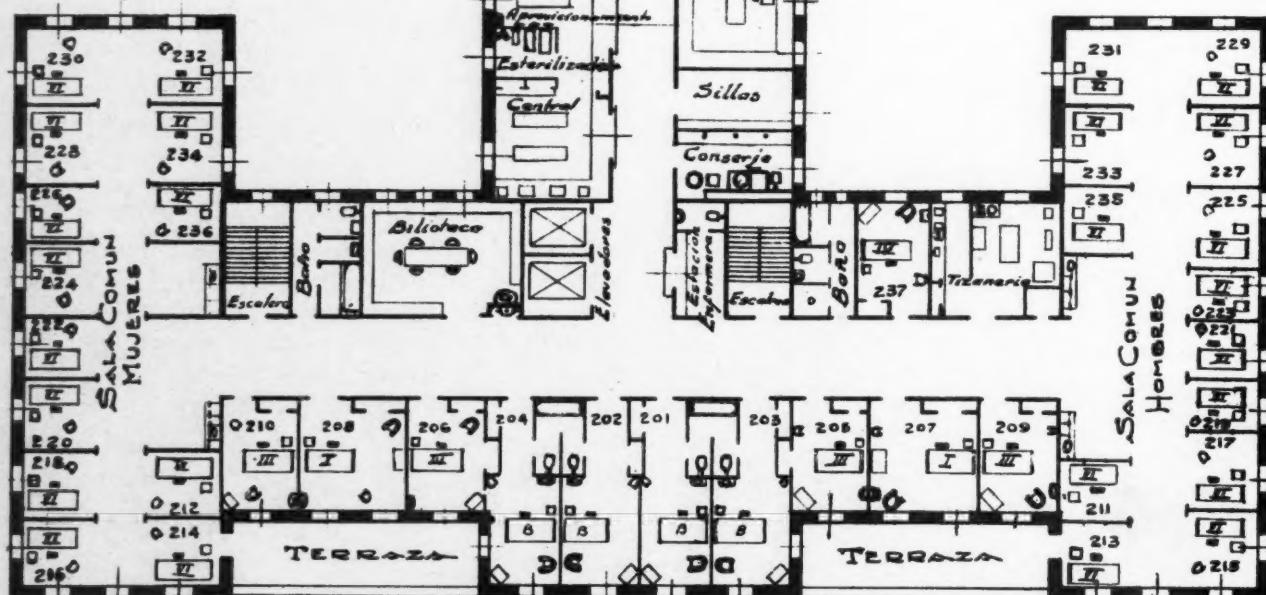
The first floor is entirely dedicated to administration. The kitchen and diet laboratory are also on this floor. The second floor plan is shown at the bottom of the page.

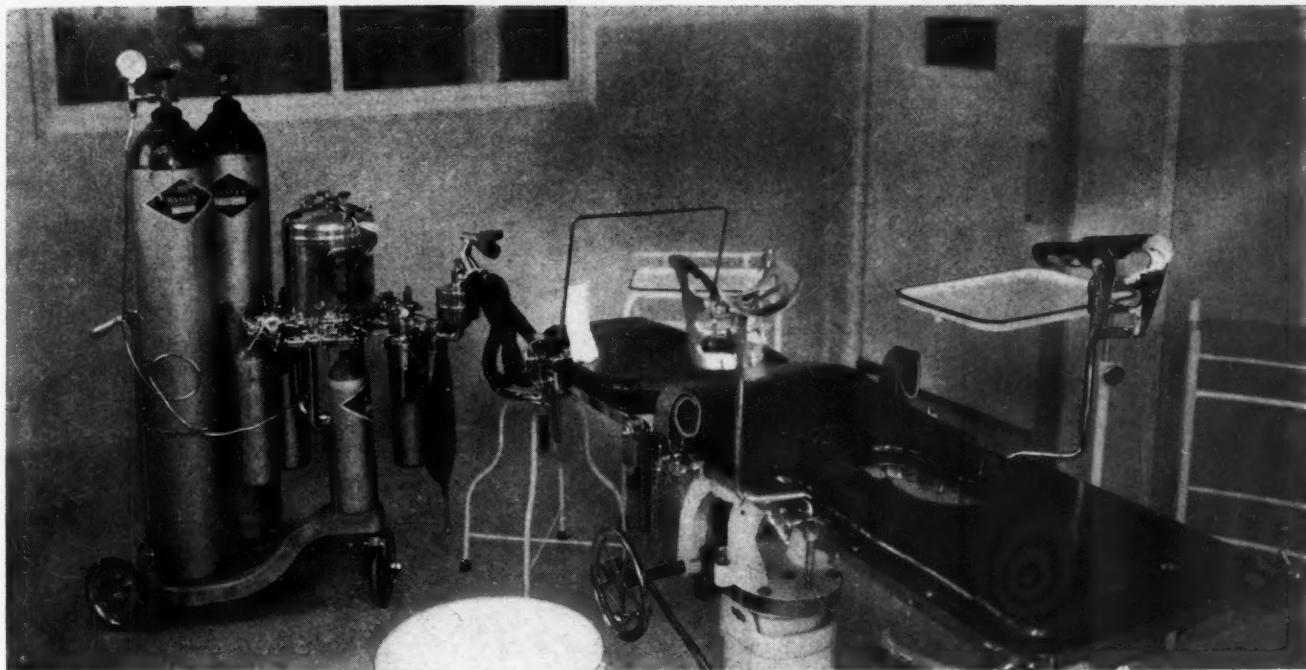


GLOSSARY

Almacen, storeroom; aprovisionamiento, central supply department; baño, bath; biblioteca, library; cobertores, bedspreads; cocina, kitchen; conserje, janitor; cuarto oscuro, dark room; depto. de enfermeras, nurses' quarters; despensa, pantry; directora, director's office; elevadores, elevators; escalera, stairway; estacion enfermeras, nurses' station; entrada de emergencia, emergency entrance; esterilizacion, sterilization; farmacia, pharmacy; gerente, man-

ager; horno, oven; lab. de dietas, dietetic laboratory; lavado de loza, dishwashing room; lino, linens; refr., refrigerators; registro, record room; sala comun. hombres, men's ward; sala comun. mujeres, women's ward; sala de juntas, conference room; sala de espera, waiting room; sala descanso, rest room; sala medicos, doctors' room; salon, nurses' lounge; sillas, wheel chairs; soluciones, solutions; terapia profunda, deep therapy; tizaneria, service kitchen; toallas, towels.





There are four major operating rooms and two for minor surgical work. All have modern lighting equipment.

There are 88 beds in the hospital, 63 of which are in private rooms.

On the second floor are private rooms and semi-private wards. In these wards one patient is separated from the others by hollow tile partitions 8 feet high, giving complete privacy. Here, too, is the central supply department, which, by the way, has saved the institution a lot of money, and facilitates hospital services in every department.

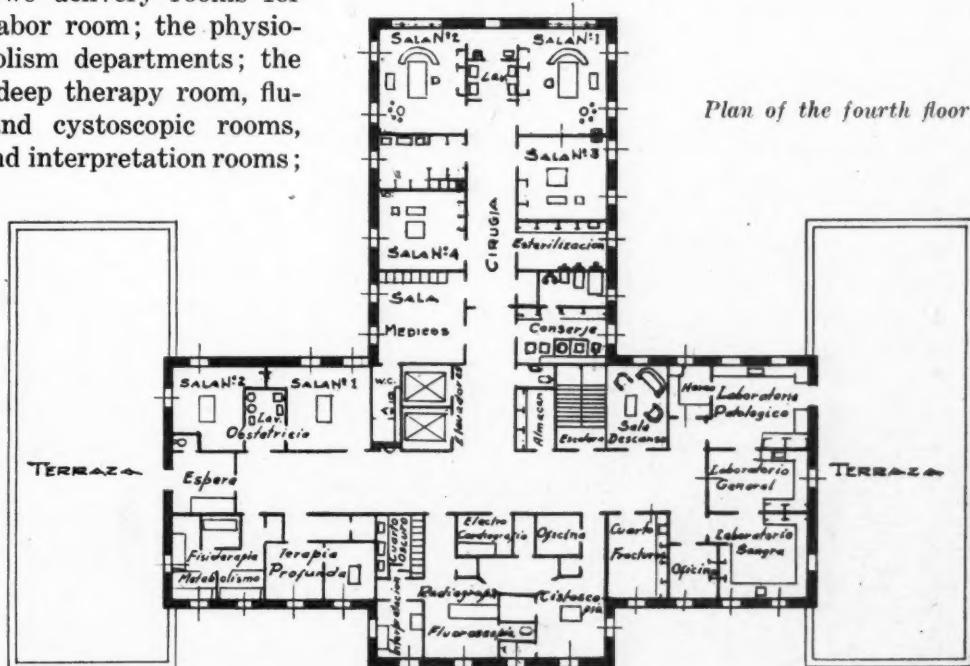
The entire third floor is given over to private rooms of various sizes, forty in number.

The surgical department with four operating rooms, sterilizing department, doctors' dressing room, and scrub-up rooms for doctors and nurses is on the fourth floor. Two delivery rooms for maternity cases, with a labor room; the physiotherapy and basal metabolism departments; the x-ray department with a deep therapy room, fluoroscopic, radiographic and cystoscopic rooms, with corresponding dark and interpretation rooms; the plaster room for fracture cases; the laboratories—blood, general, and pathological, with an oven room—and a waiting room for the use of relatives and friends of patients undergoing operations, complete the fourth floor.

The fifth floor is entirely dedicated to maternity cases, with twelve beautiful private rooms and a nursery.

On every floor, of course, there is a utility room, a service kitchen and a nurses' station. Private rooms are equipped with the latest furniture, and one of the newest signal systems has been installed for ordinary and emergency calls. Running ice water may be had on every floor; the building is steam heated and there is telephone service to all rooms.

Our hospital has just completed its first year of service, and we are proud to say that the income has been sufficient to meet the cost of operation, of course without including reserves for depreciation and amortization. We have met with many difficulties. Neither the people of this town nor



Plan of the fourth floor.

the doctors themselves, in general, were accustomed to the use of such a hospital as we now have. The people believed that to go to a hospital meant sure death. The doctors were not organized to work together in such an institution.

As a result of intense newspaper advertising, preceding our opening, about ten thousand people visited our hospital and saw its equipment and felt its pleasant atmosphere. We worked with every doctor to convince him that we had almost everything that he could need to bring health back to his patients. We tried to start a nurses' school, but our state laws were not prepared for that and we had to wait until conditions were different.

Fifty Doctors on the Staff

There are about 150 doctors in Monterrey, of whom about fifty are on the staff and work regularly at the hospital. After a year of hard work we organized a medical society in the hospital. All the doctors, with degrees from universities either in Mexico or in the United States, who had brought patients to our institution, were members of the society. From this group were appointed the members of the medical staff. The medical society has been doing some fine research with the material and experience available in the hospital, and a meeting is held every other week when interesting papers are read.

The staff meets every other week, and I can confidently say that through the organization and cooperation of this medical staff, we have improved our service a hundred per cent. The doctors have taken a great interest in the work of the hospital and are helping, both technically and materially. They issue a monthly medical review, which is sent without charge to all the doctors in the northern part of Mexico and to some doctors in the United States. In this are published the papers which they present and read at the meetings, and the discussions which follow.

Perhaps 90 per cent of our cases in the hospital are surgical. We are trying to increase the number of medical cases. Our maternity department was nearly always empty until we organized a system by which an expectant mother could come to the hospital, spending no more than she would at home, paying a fixed rate of 75 pesos (about \$20). This gives her use of the delivery room, ten days in the hospital, the use of the ambulance back and forth, and complete prenatal and postnatal advice and recommendations, as well as a monthly urinalysis during pregnancy. This system has brought to the hospital a good many patients, for even the prospective mother of very moderate means can afford now to make use of our maternity department. Besides the advantage of a fixed rate, it is

possible to pay the total amount in monthly installments beginning when the person is registered at the hospital.

In semi-private wards the per diem charge is from \$0.84 to \$1.40; in private rooms, from \$1.40 to \$3.36. For the use of the delivery room the charge is \$5.60; for the operating rooms, from \$4.20 to \$9.80, anesthetist's fee included.

Before the hospital was built, there were several small x-ray outfits in the city, but we have the largest one in northern Mexico, and, outside of Mexico City, ours is the only deep therapy apparatus in existence in the republic. This department is doing fine work and the doctors are using the x-ray equipment more and more every day for diagnostic work and treatments. We have a doctor in charge of our x-ray department who dedicates all his time to the hospital.

The laboratory is also being used more and more every day by the doctors.

I believe that under the circumstances, this first year will be the hardest in the life of our hospital. We have advanced perhaps more than a hospital ordinarily would. We have directed all our efforts to changing in the minds of the people the wrong idea which they had about a hospital. We have tried our best to please the doctors in every way and give them all they want so that their work is pleasant, effective and efficient. We have managed to make them all like to come to the hospital every day; their complaints are investigated immediately and an attempt is made to correct whatever deficiency they may have found.

The salaries paid are as follows: nurses, from \$16.80 to \$28 a month; laboratory technicians, \$28; ward maids, and laundry workers, from \$12.40 to \$16.80. The nurses have room and board at the hospital free. The minimum wage in Monterrey is \$0.42 a day, according to the labor law.

5 Per Cent Treated Free

About 5 per cent of our first year's patients were treated free, which has brought prestige and good will to the hospital. We have no out-patient department for poor patients at present, but our interns attend the poor free of charge and sometimes give them medicines free. We are planning to organize a clinic for the poor with the cooperation of the members of our staff, who are willing to help. Staff doctors have facilities for seeing their private patients in the hospital.

The total cost of the building, including equipment, installations, furniture, was \$200,000; the cost per cubic foot, \$0.28; the cost per bed, \$2,000.

I am sure that our work will be imitated by other cities of Mexico, for Mexico is a young and progressive country.

What Is Hospital Service?

*A search for the illusive distinction between
"hospital" service and "medical" service*

By MICHAEL M. DAVIS, Ph.D.

Director for Medical Services, Julius Rosenwald Fund

IN ANCIENT times the Greek "hospitals" were the outgrowth of what the priest-physicians did for ailing persons who visited their temples, and the medical service (such as it was) was the center of the "hospital" picture.

The medieval hospital, on the other hand, started as the outgrowth of Christian charity, to receive the poor and afflicted, whether sick, old or homeless. Only gradually did the hospital emerge as a place for the care of the sick, and the physician become its central figure.

The medical man has become of increasing importance in the hospital because of the enlarged powers of medicine and surgery to diagnose and treat disease. Within the last century an unparalleled advance in the medical and the economic significance of the hospital has taken place. A much more extensive and complex assemblage of professions and vocations concerned with the sick has developed within and through the hospital. Much larger facilities have been required. The modern hospital is one of the most complex of institutions, both in personnel and in facilities.

Trend Is Toward Unity

This growth in complexity has made sound organization necessary. The trend in hospital organization has been toward unity. Modern standards require that the governing body place all administrative responsibility upon one executive officer. The medical staff has needed unification so physicians could act as members of a professional group and not merely as individuals. To create and improve professional staff organization has been one of the major concerns of leading physicians and of national professional organizations, notably the American College of Surgeons and the American Medical Association. Staff organization has endeavored to create unity within the medical staff itself, and to establish and enforce professional standards of in-patient and out-patient work. It has also sought to relate the

medical staff as a whole to the other personnel and to the governing authorities of the hospital.

On the continent of Europe about five-sixths of all hospital care is furnished in hospitals with salaried medical staffs. The vast majority of European physicians have no direct connection with hospitals. Only a small number of continental hospitals, maintained primarily for well-to-do people, receive sick persons who are the private patients of physicians, and who pay fees to these physicians for services rendered in the hospital.

Likewise, in Great Britain, private fee paying patients are received only in a special group of small hospitals, usually called "nursing homes," or in limited private sections established in a very few of the older hospitals. The great bulk of British patients are either treated in government hospitals with salaried medical staffs or in the voluntary hospitals where, with the minor exception just mentioned, all persons admitted are "staff patients." They are assigned to the physician who is "on service" at the time in the appropriate specialty, and they pay no fee whatever to any physician.

In a world view, the situation in the United States and Canada is exceptional. Here the hospitals have developed in a broad relationship with medical practices. A large proportion of the privately practicing physicians in the United States have the professional stimuli and the practical advantages of hospital and out-patient facilities. But do these advantages of the American situation involve any more distinction between hospital service and medical service than exists in the British voluntary hospitals or in the continental hospitals with salaried medical staffs?

About 90 per cent of the investment in hospitals in the United States has been made on a non-profit basis, without expectation of any return

to the individuals or agencies which have put up these large capital sums. In the general hospitals the larger part of the capital has been invested by philanthropic individuals and organizations, a substantial part by local, state and national governments. In all the hospitals taken together, only about \$270,000,000, or 9 per cent of the total, has been invested on a business basis.

But the overwhelming proportion of hospital service, here and abroad, has its economic foundation in the investment of nonprofit capital, social capital. Psychologically this investment rests upon public confidence in medicine and often upon the regard or gratitude of individual donors toward particular physicians. Legally, the ownership of this capital vests in nonprofit organizations such as incorporated boards of trustees, churches, educational and fraternal agencies, or in the public as a whole through local, state or national governments.

The legal status of the typical hospital is that of a nonprofit corporation established and operated for community service. The body—voluntary or government—which owns the capital is legally the final authority over the hospital, appointing its medical staff and its administrative officers and controlling its policies. The physician who cares for patients in a hospital, whether private patients or staff patients, does so by virtue of appointment by the government or the voluntary agency which owns the capital.

Since investment of hospital capital has been made for the medical care of the sick, it is obvious that the purpose of the investment can be accomplished only when qualified physicians are appointed to the hospital staff and are given opportunity and assistance to use their knowledge and training effectively. The purpose of the board of trustees or other governing body of the hospital, and of its administrative officer, the hospital superintendent, is to see that the hospital capital is used effectively and economically, and that the medical staff and other personnel are properly selected and have working conditions such as will facilitate efficient service.

Hospital and Doctor Interdependent

I have heard Dr. Charles Mayo tell how, as a boy of twelve, he held a lamp for his father to operate in a rural home while his older brother Will, aged fourteen, administered the anesthetic. Any sick man would prefer to be operated on by a Mayo with primitive equipment rather than to lie in the most elaborately equipped hospital without any surgeon to attend him. Obviously the capital investment would be useless without the physician.

On the other hand, the physician can no longer be effective in many cases of illness without a large investment of capital, such as exists in hospitals, and without the administrative organization which facilitates the work of the physician and of other professional and technical personnel. It is this organization which distinguishes a hospital from a mere hotel in which a sick man may be treated by physicians and nurses.

At what point can a line be drawn, if anywhere, between "hospital" service and "medical" service? Service to the patient is the central purpose of the hospital. Can a line be drawn across this service, separating it into two elements? If so, at what point should the line begin? Is the service of the nurse, for example, "hospital" care or "medical" care? Does the answer depend on the kind of work the nurse does? In some hospitals the nurse will perform certain services which in others are performed by a staff physician or an intern. Does the answer depend on whether the nurse is paid by the hospital or, as in the case of a special nurse, by the patient directly? Is the work of an intern "hospital" service or "medical" service? How shall the work of a salaried resident of four years' standing be classified?

A Nice Distinction

It is obvious that there are functions like heating the building and filing records which are mere subsidiaries to the care of the patient, as contrasted with a surgical operation or an enema, which are that care itself. Are the two former always "hospital" service, and are the two latter always "medical" service, no matter by whom performed? Is the provision of food a "hospital" service? Is it the same in the case of a patient receiving regular house diet as in a case of diabetes or malnutrition where especially prescribed food is an essential part of the treatment?

In a proprietary hospital owned and conducted by a few physicians, where can a line be drawn separating "hospital" from "medical" service? Have the physician-owners or staffs of such hospitals ever tried to draw such a line as affecting their residents or their roentgenologists? And if, as has happened many times of late years in such proprietary hospitals, the institutions are reorganized on a nonprofit basis with the same personnel under a lay board of trustees, do "hospital" and "medical" service, for similar patients by the same people, then become separable in a new way?

If a patient pays the hospital a ward rate when the physician is paid nothing, should a wedge separating "hospital" service from "medical" service be driven in, and if so, at what point? Is a

basal metabolism test, for such a patient, the one or the other? Is the examination of a tissue specimen by a pathologist, or of an x-ray film by a roentgenologist, the one or the other? And if the patient paid a special fee for the examination, would it affect the classification? Is an intravenous injection "hospital" service if given by an intern (or a nurse) to a ward patient? Does it become "medical" service if given by an attending physician to a private patient? In summary: are "hospital" service and "medical" service to be separated because of the nature of the service which is furnished the patient, or because of a difference in the economic relation of the physician to the service?

An Economic, Not a Professional, Issue

As a matter of fact, the issue has arisen with reference to that minority of hospital patients who are private patients, that is, whose physicians are remunerated by fee received from the patients. This issue is also raised with regard to staff patients who are thought to have been admitted incorrectly, that is, who, physicians believe, would have been able to pay as private cases. In either instance the issue clearly arises for economic and not for professional reasons. Driving a wedge between two mere names would not matter, but if what would result were less coordination between the professional and administrative organizations of the hospital, it would matter a great deal. Separation between "hospital" service and "medical" service would be inconsistent with the trend in hospital organization fostered by our leading medical and hospital associations for many years; and although it would directly affect only a minority of hospital patients in the United States, it would tend to lower the standard of service to all patients.

Physicians may well raise questions as to the justice or adequacy of the remuneration which they receive directly or indirectly for work in hospitals and clinics, and propose changes in the amount or the methods of payment. These proposals, however, are economic issues and can be dealt with as such without violating professional principles.

Hospital and out-patient work has been for many years making increased demands upon physicians for service without direct remuneration. Requests have appeared for the payment of clinic physicians in many places and for payment of in-patient services in a few. The obvious lack of sufficient funds for a general policy of this sort has usually forestalled serious discussion of the question. At the present time there are a number of physicians on full-time and others on part-time

salary in hospitals and clinics; there are many who are remunerated by fees from patients; a large number who receive no cash remuneration at all from the hospital; still others who receive a share of certain fees collected by the hospital, and there are physicians whose arrangements with a hospital involve some combination of these methods. It is apparent that plans of remuneration have varied with circumstances and that the tests of any plan are: (1) Is the amount adequate? (2) Is the method of payment compatible with good professional standards?

Dr. R. C. Buerki, in a recent article¹ gave illustrations of some practical difficulties in certain recent proposals to change methods of payment in one specialty. These difficulties illustrate the point that it is wise to think through the implications of an idea before elevating it into a principle or a slogan.

Present hospital standards of professional and administrative organization have been laboriously won and represent distinctive cooperation between the medical profession and public-spirited citizenry, in a common service to humanity. The development of hospitals in this country and elsewhere has been in the direction of a unified service to the patient. Coordination among the physicians and between the physicians and the rest of the hospital personnel has been shown to be conducive to the best professional standards, and to the mutual interests of physicians, patients and community. Any lines of demarcation which would tend against this coordination would be disadvantageous to these interests.

There Is Need for Revision

The history of hospitals and an analysis of their functioning makes clear that the distinction between "hospital" service and "medical" service is raised as an issue only in regard to a fraction of hospital patients and that the real issue in these cases is how the physician shall be compensated. It is equally clear that the basis of compensation for much work now done by physicians in hospitals and clinics needs revision. It is important to consider methods of payment in relation to professional status and to hospital organization; amounts of payment in relation to professional needs, and the sources of funds available for payment. The ultimate considerations must be the bearing of all these questions (1) upon service to the patient, (2) upon the status and advancement of medicine, and (3) upon the development and maintenance of good will among the people who collectively own and control the hospitals.

¹The Hospital and the Radiologist, The MODERN HOSPITAL, April, 1936, p. 68.

Forecasts of Hospital Finance

By BASIL C. MACLEAN, M.D.

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THE loosening of the latchstring of spending by government, the improved indices of business and the increase of private patient patronage in voluntary hospitals appear to have provoked again complacency and smugness in the hospital field on the subject of hospital finance. Even the editorial comments of hospital journals indicate a belief that the lightning will not strike again. To offset a little this abundant optimism, it would perhaps be wise to consider a warning of the sage, Santayana, "Those who cannot remember the past are condemned to repeat it."

Seven or eight years ago, we were basking in the sun of a bull market. Pay patients were plentiful; philanthropy was partial to hospital care; civic, sectional and religious group pride asserted itself; physicians fought for more appointments and higher hospital ranking and the American hospital multiplied faster than the prolific and proverbial rabbit. Shortly afterwards, we began to realize that there was something slippery in the slogan, "Never sell America short," and then we settled down to a house cleaning in hospital administration and a more serious study of hospital finance.

No More Santa Claus

It was a rude awakening when we learned that Santa Claus had run out of "make-up-the-deficit" dolls for our hospital stockings, but it taught us at least, that even a charitable activity must be conducted in a businesslike manner. As the widow of the lazy husband remarked, when after his cremation, she put his ashes in an egg timer, "It isn't so bad for at last he's started to work."

Expenses were trimmed whenever possible and it was observed that the quality of hospital and clinical care did not suffer when, say, a proprietary product was replaced by its pharmaceutical twin at one-quarter of the cost. The elimination of some extravagances and absurdities in hospital care was a blessing in disguise. Unfortunately, in most instances, the pay roll was the main bulwark against bankruptcy and the personnel of American hospitals should receive much of the credit for carrying the depression load of free care and keeping open the hospital doors.

The depression years have impressed upon us the financial frailty of our voluntary hospital system and have brought to us a number of important developments in the field of hospital care. The World War, of course, increased Uncle Sam's work as trustee of hospital care for service-incurred sickness, injury and disability. It remained for the politician plus the pressure to organize minority groups to extend federal hospital care to office duty heroes, congressmen and other guzzlers at the government trough. This has been done by both parties and the New Deal has not changed the picture. Indeed, one of the features of the recovery legerdemain was the balance preserved by destroying hogs and building hospitals. Even in its widest application, however, a federal hospitalization program is limited. It is the smaller units of government, the state, county and municipality, which concern us more.

What is the proper function of government in the care of the sick? Some believe that in addition to the hospitalization of tuberculosis and mental disease, government agencies should restrict their province to the care of indigents, including, of course, not only the genuine relief population, but also the boondogglers and loafers who still clutter the relief ranks. That would leave to private philanthropy, endowments, community chests, the deficit load of borderline and part-pay patients.

If such a principle is accepted, how should government furnish hospital care? Should new hospitals be built or should voluntary hospitals be subsidized? City, county or state general hospitals exist in less than one-seventh of the counties of the United States and many of them are not adequate for the indigent case load. Voluntary general hospitals, on the other hand, provide two-thirds of all general hospital beds in the United States, but revenues are insufficient to bear alone the increased burden of charity patients, most of whom are eligible for other forms of government relief. It is for this reason that

Current maintenance is the problem, says the author, and discusses possible solutions

the American Hospital Association has urged state and local hospital associations and councils to work with government agencies in an attempt to establish systems of subsidy of voluntary hospitals.

There are several warnings, however, which might well be heeded by non-profit or voluntary hospitals when seeking government aid. In spite of persistent efforts during recent years to organize and encourage hospital councils, the competition between local hospitals in most communities is as friendly as that of fish hawkers at a fair. Government authority will hesitate to deal with a hospital family whose members cannot agree amicably among themselves and who, too often, exist more for pride and prejudice than for community need.

Most of us believe that a patient per diem subsidy system is preferable to lump sum grants. Again, however, there is difficulty in determining a fair and honest standard cost per patient day. Accounting methods in most hospitals are either too antiquated or too involved. The evasions and inaccuracies of the average hospital statistical and financial report of free work would make Al Capone's income tax return a model of truth and honesty. Let us be fair and abandon this nonsense of counting the days of illness of student nurses and the uncollected accounts of private patients as "free work" of the hospital.

There is also a tendency for the voluntary hospital to demand that government pay the whole cost of care of indigent patients. Might it not be wise rather to offer to share the burden with government where voluntary hospitals enjoy tax exemption and other privileges and receive donations and bequests as charity institutions? There is considerable danger that such tax exemption privileges may be withdrawn. It should also be remembered that government subsidy implies some form of government control. He who pays the piper may not call the tune, but he may insist on deciding the key in which the tune shall be

played. At the opening session of the State Conference of Charities and Correction of New Jersey, twenty-five years ago, the then governor, Woodrow Wilson, expressed it thus, "Your quest of justice will lead you to the confines of politics."

Social security and similar legislation will undoubtedly increase in scope during the next few years. Thoughtful observers predict that the trend will be as follows: old age pensions, unemployment insurance, maternal welfare and crippled children, nursing care, medical care, dental care and finally, perhaps, hospital care. It is probably safe to prophesy that hospitals will get the hind teat when it is financial feeding time.

For current maintenance, most voluntary hospitals depend primarily on patients' income and the profit on oranges is expected to offset the loss on bananas. In spite of the altruistic advice of some side line critics, we shall probably continue to feel justified in charging the colonel's lady a little more than cost for her private room to make up in part for the loss on ward care for Judy O'Grady. In doing so, a hospital may hope to break even on operating costs, but seldom is an attempt made thus to meet fixed charges also.

Militant Minorities Are Alarmed

However, there is cause for concern over some recent activities of medical politicians which threaten the financial hospital structure. Militant minorities of middle-aged physicians profess alarm at the growth of the institutional practice of medicine. They seem to forget that the hospitals are designed as workshops for them and that the public will be best served when the greatest use is made of all hospital facilities. In particular it is the salaried physician in hospitals who is under fire. He is considered by them a slave of a predatory capitalistic hospital system and in spite of his own desires, he must change to a piecework or individualistic fee basis. Diagnostic departments and laboratories of hospitals are singled out for attack and it is claimed that the hospital competes with the private practice of medicine when it performs and charges for any service which might be done for a separate professional fee by a private physician. For example, to paraphrase Micawber, "Annual x-ray department income, twenty pounds; annual x-ray expenditures, nineteen and six. Result, damnation and disgrace."

Let us hope that the more temperate minds in organized medicine may realize that the hospital has no desire to exploit the doctor and that only by mutual assistance can the extension of state controlled service be stayed and the voluntary hospitals be preserved for the doctors who use

them and the public who owns them.

In hospital financing, tremendous amounts could be saved the general public if there were more coordination of diagnostic facilities. The hospital is the logical point of concentration for capital investment in medical care and sound community plans and business judgment should reveal the importance of greater utilization of it. Much has been written of the large number of vacant beds in voluntary hospitals, but the economic waste of their unused x-ray and laboratory facilities is even more important.

Community chest support is received by voluntary hospitals in approximately sixty cities. Donations unrestricted and for current maintenance are uncertain and relatively small as an item of revenue. The total endowment capital controlled by American hospitals would maintain less than 3 per cent of the hospital service of the country and it is concentrated for the most part in older institutions and areas. Both donations and endowment as sources of revenue, however, are decreasing, the former because of increased taxation and the latter because of refunding of securities and cheaper money. An average return of 5 per cent of a few years ago has changed in many instances to one of 4 per cent or less today. A philanthropist used to be a person who financed a social activity. Like that of capitalist, the definition is being narrowed and will possibly come to mean a man with two pairs of pants.

Disapproves of Sweepstakes

What support will sweepstakes and lotteries receive in this country? In this year of our Lord and Doctor Townsend, almost any economic asininity may conceivably be approved by a gullible American public, but it is to be hoped that the Irish system will not find favor in the United States. Private philanthropy would be discouraged and public sympathy cooled. Hospitals might receive some money. Commercial exploiters and selfish promoters would receive much more and eventually taxation would take most of the profit.

And now what of hospital insurance or group hospitalization? As Dr. C. Rufus Rorem has aptly remarked, this country and Canada are the only places in the world where the average person is expected to pay for hospital care. In other countries, hospitalized illness, except for the well-to-do, is a responsibility of the state. Hospital insurance is slowly but steadily gaining ground and its soundness and merit are being recognized by the public, the profession and the hospitals. Even the most captious critics are volunteering an endorsement of it and medical moguls are realizing that it is perhaps an antidote to, rather than a

precursor of, the much discussed state medicine.

Four years ago, at a St. Louis meeting of the American College of Surgeons, the observation was made that hospital insurance, while not a panacea for hospital ills, offered the greatest promise of delivery from economic pain. Since that time many more cities have successfully embarked on a program and hospital care is being put in the family budget. In general the actuarial experience has been better than anticipated and subscribers' contracts are being liberalized. In view of the trend of social legislation, however, it is important that we press forward as rapidly as possible and that we do our utmost by rate reduction to bring the plan within reach of all workers, urban and rural, who can afford protection by small periodic payments, but who cannot pay sudden and unexpected hospital bills. In spite of the largess of legislators and sociologists with other people's money, it is not too late to establish firmly with the self-respecting American public, the principle of payment for hospital care.

Financing Capital Expenditure

It is difficult to consider the adequacy of hospital finance as a subject separate from the adequacy of hospital care. This presentation, however, is intended to refer only to the financing of existing hospital facilities. It also is confined to the income side of the hospital ledger and deals more with the income for current operation expenses than income for capital expenditure. It is generally agreed that capital for construction of voluntary hospitals should come from private sources and also that any added financial burden for research or teaching should be supported by specific donations or special funds.

Current maintenance is the real problem. Private and semiprivate patients will continue to pay the cost or almost the cost of their care, but ward patients and out-patients furnish most financial worries. What is the solution? Is it government subsidy from tax funds, is it hospital insurance, is it increased use of community chest monies and other forms of private philanthropy? Perhaps it will be a combination of all such forms of support.

The thoughts here expressed are a summary of studies of this subject by such leaders as Dr. G. Harvey Agnew, Dr. Michael M. Davis, Dr. Nathaniel Faxon, Dr. J. Rollin French, Dr. S. S. Goldwater, Dr. W. S. Rankin, Dr. C. Rufus Rorem and others, and are suggested for discussion because the depression has taught us a valuable lesson — that long range planning is an important part of hospital administration.¹

¹Abstract from "The Adequacy of Hospital Finance," as presented at the Tri-State Hospital Assembly, Chicago, May 7, 1936.

Administering Blood Transfusions

By WALTON FOREST DUTTON, M.D.

Amarillo, Texas

THE history of blood transfusion dates from the seventeenth century. Blood transfusion, however, was not developed upon a scientific basis until the discovery of blood groups by Dr. Karl Landsteiner, in 1900. This discovery was one of the greatest achievements of medicine in the beginning of the twentieth century. Dr. Ludwig Hektoen first pointed out the possible danger from iso-agglutination in transfused blood (1907). The transfusion of whole and citrated blood did not come into general use until about 1915.

A recent survey shows that large hospitals as a whole are well prepared for blood transfusions; small hospitals in general are inadequately provided for the procedure. The reason is obvious when the administration of the hospitals is taken into consideration.

Indications for transfusions are: (1) hemorrhage—(a) traumatic, (b) secondary to local disease, (c) secondary to surgical operations; (2) shock; (3) hemorrhagic diseases; (4) certain blood dyscrasias; (5) certain poisons; (6) infectious diseases; (7) miscellaneous conditions.

A practical method of community control of professional blood donors, now in force in New York City and also in London, Brussels, Berlin, Paris, Moscow, and Leningrad, should be made compulsory by law in all hospitals.

What Russia Is Doing

The Soviet government has initiated a commendable movement which may be profitably adopted by all nations. The Institute for Transfusion of Blood in Moscow has under its administration 514 blood supply stations scattered throughout the U. S. S. R. Recently \$1,900,000 was allotted to the institute for further support and promotion of its activities.

If a blood donor agency is used, a donor of the same group as the patient can readily be obtained. It is then only necessary to cross-match the bloods. Should the same donor be used for the same pa-

A recent survey of large and small hospitals has revealed interesting facts regarding blood transfusion and its possibilities

tient in subsequent transfusions, cross-match should be repeated before each transfusion is administered.

The health of the donor, preferably a young man, should be perfect. A near relative should be selected if available and suitable. Syphi-

lis, malaria, manifestations of hypersensitivity, measles, small-pox and other diseases must be excluded. Donors should have normal blood, normal blood pressure and be free from neurotic tendencies. They should be well nourished individuals. The average healthy young man may submit to transfusions of 500 c.c. of blood every six weeks for one year, without material injury to his health. A plethoric donor may give 1,000 c.c. at one time and experience no bad result. Attention should be directed to the postoperative care of all donors.

Donor Should Have Physical Examination

The blood of the donor, whether professional or nonprofessional, should be examined for groups according to Doctor Landsteiner's classification, for flocculation test and for blood count; the urine should be examined and a physical examination made of the donor.

The amount of blood to be transfused and the time consumed will depend upon the condition to be met and should be left to the judgment of the operator. It should also be determined by the type of operation when the transfusion should be administered. In operative cases, the time, whether preoperative, during operation, postoperative or all three, is usually governed by the condition of the patient.

The improvement in mechanical appliance during recent years has aided in the development of technical mastery in administering blood transfusions. A properly equipped treatment room is essential to satisfactory amenities and niceties of technique. It consists of the following:

Proper lighting effect.

Operating and dressing tables with complete accessory equipment.

A suitable infusion apparatus ready for use.
A direct transfusion apparatus.
Simplified apparatus for transfusion of citrated blood.
Sterile syringes, needles and instruments.
A reliable sphygmomanometer.
Vessels for antiseptic solutions.
Flask of ethyl alcohol.
Flask of physiologic saline solution.
Ampules of sodium citrate and ampules of dextrose-Ringer's.

Sterile gauze and bandages.
Container for antiseptic solutions.
Ampules of adrenalin, metrazol, coramin, for use as restoratives in sudden circulatory and respiratory failure.
Adjustable examining light with floor stand.
Hot water bottles or hot sand bags to aid the support of peripheral circulation of donor and recipient.

Vein to vein transfusion has proved to be the simpler, easier and more practicable method. The superficial location of the vessels, the slow flow of the blood and the reduced strain on the heart have brought this method into common use. A dose of $1\frac{1}{2}$ grains (0.1 Gm.) of nembutal, by mouth, one-half hour before the operation, keeps the patient calm and quiet.

Methods Generally Used

The methods of blood transfusion now in more or less general use are: The transfusion of citrated blood by the indirect method, unmodified blood by the syringe method or the paraffinized tubes. There are numerous devices which serve to apply one or another of these methods. The most representative of the various techniques have been named in this paragraph.

Dutton's simplified apparatus for the gravity method of transfusing citrated blood has the advantage of permitting the preservation, storage and transportation of the blood in the container. Lewisohn's gravity apparatus is the one best suited to immediate transfusion of citrated blood. The syringe method represents the most highly scientific technique available at the present time. Directions for use of the apparatus are prepared by the manufacturers and accompany each machine.

The bed, operating table or stretchers for donor and recipient should be of the same height and adjustable to height and position. A rigid board or suitable small table is placed between them for resting the arms and adjusting the apparatus. All parts of the transfusion apparatus may be boiled. After the syringe has been sterilized, it should be properly assembled.

Before using the tubing for the first time, it is advisable to soak it, inside and out, for six hours, in 5 per cent sodium hydroxide solution. It should be rinsed and sterilized in the usual way. This eliminates the possibility of reaction due to the rubber tubing.

If through accident it should be necessary to interrupt the transfusion, the operator should disconnect the apparatus from the needles, aspirate for possible clots and insert blunt stylets, providing the needles are still in the veins. He should place the ends of the tubes to which the adapters are attached in the saline reservoir and flush the syringe and tubing with saline solution by operating piston in all directions. When the syringe and tubing are thoroughly clean, he should fill them with fresh saline, connect them to the needles and continue the transfusion.

Operator Must Understand Apparatus

If clots are formed in either needle, they may usually be removed by aspirating with a sterile 20 c.c. syringe. If the needle point is occluded by the vein wall, it can be freed by rotating the needle. It is of paramount importance that the operator familiarize himself with the mechanism and operation of the apparatus before use.

The hazard, resulting from clotting and trauma of tissues and veins, is too great to justify the use of the Kimpton-Brown tube.

Large hospitals, and small hospitals if practicable, should have a physician with special training in blood transfusions and in the care of recipients. It is imperative that he be familiar with the condition, preoperative, during operation and postoperative. He should be on the alert for any emergency that may arise and be prepared to meet such emergency. In other words, he should be a director of transfusion operations.

In the absence of any contra-indications, blood transfusion is not a hazardous operation when properly performed. Blood transfusion is absolutely contra-indicated in pulmonary edema and cardiac decompensation. Caution should be used in giving transfusions in pneumonia and bronchitis, which may result in pulmonary edema and in an overburdened heart. In myocardial weakness without manifest insufficiency blood transfusion may be used if given slowly and stopped at the first sign of dyspnea, precordial distress or cyanosis with change in regularity and volume of the pulse.

Incompatibility is the most important cause of reactions following blood transfusions. Reports from Bellevue Hospital, New York City, and the Mayo Clinic, Rochester, Minn., tend to confirm this statement. The reaction is usually in proportion

to the amount of incompatible blood transfused. The symptoms are evidenced by restlessness, anxiety, generalized painful tingling sensations over the body, especially in the lumbar region, sensations of fullness in the head, precordial oppression and dyspnea, chills followed by a cold perspiration. Collapse may follow with rapid, feeble pulse and cold clammy skin, nausea and vomiting. On the appearance of any of these symptoms, the transfusion must be stopped immediately, and if collapse supervenes one c.c. of adrenalin (1:1,000), or of metrazol or of coramin should be given, intravenously, every twenty minutes until it has subsided.

Patients who survive the immediate reaction to the transfusion of incompatible blood may have a recurrence within an hour. This is manifested by a severe chill and a rapid rise in temperature, frequently followed by hemoglobinuria and usually by suppression of urine. During a period of several days there may be symptomatic improvement but continued oliguria. Jaundice may develop. Drowsiness may set in and the patient may die of uremia. However, the longer the patient lives the better the chance of recovery.

Obviating Reactions

Reactions have been attributed to the use of citrate used for transfusions. There appears to be conflicting opinions among authors concerning the use of citrate transfusions. The indirect citrate method has been used for twenty years in the majority of blood transfusions done at the Mayo Clinic. The method of transfusion in use in the larger hospitals of the United States is about equally divided between the citrate and the whole blood methods.

Some of the reactions of blood transfusion have been caused by the accumulation of blood clots, or of débris, such as scales of deteriorated tubing or needles, which remain in the apparatus and needle after sterilization. (Tubing and needles should be replaced when they show evidence of deterioration or defects.) Pumping saline or citrate solution through the apparatus before the transfusion should aid in preventing such reactions. Reactions have been attributed to soluble toxic substances or powder present in new tubing. This may be obviated by saturating new tubing in normal sodium hydroxide solution for six hours. Then the tubing should be thoroughly cleansed with cold water followed by saline or citrate solution before sterilization.

The danger of incipient coagulative changes in transfused blood has been exaggerated. If the transfusion apparatus is properly prepared and used at the proper temperature, the passage of

blood through the instrument will not cause coagulation.

Allergic reactions are rare but they do occur. For this reason it is important to prevent the use of hypersensitive donors. A fasting donor should be used for hypersensitive recipients.

Embolism is rather an infrequent accident in blood transfusion. It is imperative that all solutions used in transfusion be free of flocculi or other foreign matter. These form a nucleus for emboli. In cases of acute or subacute bacterial endocarditis or puerperal conditions, the operation of transfusion should be approached with caution. The operation of cutting down upon the vein and inserting cannula has caused many accidents. Particles of tissue, such as globules of fat and small clots of blood, are inserted with the cannula into the vein with the obvious result. Air embolism per se is mythical and not worthy of serious consideration. The idea has grown out of the use of crude apparatus and technique. When air and blood are agitated for some time in a cold syringe, clotting is inevitable, but even this will not occur if a citrate solution is immediately drawn into the syringe as a diluent.

There seems to be an impression among some physicians that the procedure incident to blood transfusions is a minor operation. This, indeed, is unfortunate. The scientific administration of blood transfusion is one of the most highly technical procedures in medicine and surgery and should be so considered.

When indicated, blood transfusion is a health giving and life saving procedure. Hospitals prepared to administer blood transfusions properly contribute a great deal to the achievements of the science of medicine.

Selective Menus for Satisfied Patients

Is there any reason why patients should be expected to eat food while in a hospital that they would not eat at home?

While it simplifies kitchen work to have every patient on house diet eating identically the same menu, it does not tend to make friends for the dietary department. If Mrs. X dislikes carrots, she will not relish them just because they appear on her tray, and if they appear too often, together with a few more of her pet aversions, the food service in that hospital, so far as she is concerned, will be poor even though the greatest of care has been exercised to provide a well balanced menu.

To obviate this difficulty the use of a selective menu is indicated. Giving patients the choice of two or three meats, three or four vegetables, and two or three desserts does not add a great burden to the dietary department and brings rich returns in satisfied patients.—Lucius R. Wilson, M.D., John Sealy Hospital, Galveston, Tex.

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Sterile gauze and bandages.
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Adjustable examining light with floor stand.
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The bed, operating table or stretchers for donor and recipient should be of the same height and adjustable to height and position. A rigid board or suitable small table is placed between them for resting the arms and adjusting the apparatus. All parts of the transfusion apparatus may be boiled. After the syringe has been sterilized, it should be properly assembled.

Before using the tubing for the first time, it is advisable to soak it, inside and out, for six hours, in 5 per cent sodium hydroxide solution. It should be rinsed and sterilized in the usual way. This eliminates the possibility of reaction due to the rubber tubing.

If through accident it should be necessary to interrupt the transfusion, the operator should disconnect the apparatus from the needles, aspirate for possible clots and insert blunt stylets, providing the needles are still in the veins. He should place the ends of the tubes to which the adapters are attached in the saline reservoir and flush the syringe and tubing with saline solution by operating piston in all directions. When the syringe and tubing are thoroughly clean, he should fill them with fresh saline, connect them to the needles and continue the transfusion.

Operator Must Understand Apparatus

If clots are formed in either needle, they may usually be removed by aspirating with a sterile 20 c.c. syringe. If the needle point is occluded by the vein wall, it can be freed by rotating the needle. It is of paramount importance that the operator familiarize himself with the mechanism and operation of the apparatus before use.

The hazard, resulting from clotting and trauma of tissues and veins, is too great to justify the use of the Kimpton-Brown tube.

Large hospitals, and small hospitals if practicable, should have a physician with special training in blood transfusions and in the care of recipients. It is imperative that he be familiar with the condition, preoperative, during operation and postoperative. He should be on the alert for any emergency that may arise and be prepared to meet such emergency. In other words, he should be a director of transfusion operations.

In the absence of any contra-indications, blood transfusion is not a hazardous operation when properly performed. Blood transfusion is absolutely contra-indicated in pulmonary edema and cardiac decompensation. Caution should be used in giving transfusions in pneumonia and bronchitis, which may result in pulmonary edema and in an overburdened heart. In myocardial weakness without manifest insufficiency blood transfusion may be used if given slowly and stopped at the first sign of dyspnea, precordial distress or cyanosis with change in regularity and volume of the pulse.

Incompatibility is the most important cause of reactions following blood transfusions. Reports from Bellevue Hospital, New York City, and the Mayo Clinic, Rochester, Minn., tend to confirm this statement. The reaction is usually in proportion

to the amount of incompatible blood transfused. The symptoms are evidenced by restlessness, anxiety, generalized painful tingling sensations over the body, especially in the lumbar region, sensations of fullness in the head, precordial oppression and dyspnea, chills followed by a cold perspiration. Collapse may follow with rapid, feeble pulse and cold clammy skin, nausea and vomiting. On the appearance of any of these symptoms, the transfusion must be stopped immediately, and if collapse supervenes one c.c. of adrenalin (1:1,000), or of metrazol or of coramin should be given, intravenously, every twenty minutes until it has subsided.

Patients who survive the immediate reaction to the transfusion of incompatible blood may have a recurrence within an hour. This is manifested by a severe chill and a rapid rise in temperature, frequently followed by hemoglobinuria and usually by suppression of urine. During a period of several days there may be symptomatic improvement but continued oliguria. Jaundice may develop. Drowsiness may set in and the patient may die of uremia. However, the longer the patient lives the better the chance of recovery.

Obviating Reactions

Reactions have been attributed to the use of citrate used for transfusions. There appears to be conflicting opinions among authors concerning the use of citrate transfusions. The indirect citrate method has been used for twenty years in the majority of blood transfusions done at the Mayo Clinic. The method of transfusion in use in the larger hospitals of the United States is about equally divided between the citrate and the whole blood methods.

Some of the reactions of blood transfusion have been caused by the accumulation of blood clots, or of débris, such as scales of deteriorated tubing or needles, which remain in the apparatus and needle after sterilization. (Tubing and needles should be replaced when they show evidence of deterioration or defects.) Pumping saline or citrate solution through the apparatus before the transfusion should aid in preventing such reactions. Reactions have been attributed to soluble toxic substances or powder present in new tubing. This may be obviated by saturating new tubing in normal sodium hydroxide solution for six hours. Then the tubing should be thoroughly cleansed with cold water followed by saline or citrate solution before sterilization.

The danger of incipient coagulative changes in transfused blood has been exaggerated. If the transfusion apparatus is properly prepared and used at the proper temperature, the passage of

blood through the instrument will not cause coagulation.

Allergic reactions are rare but they do occur. For this reason it is important to prevent the use of hypersensitive donors. A fasting donor should be used for hypersensitive recipients.

Embolism is rather an infrequent accident in blood transfusion. It is imperative that all solutions used in transfusion be free of flocculi or other foreign matter. These form a nucleus for emboli. In cases of acute or subacute bacterial endocarditis or puerperal conditions, the operation of transfusion should be approached with caution. The operation of cutting down upon the vein and inserting cannula has caused many accidents. Particles of tissue, such as globules of fat and small clots of blood, are inserted with the cannula into the vein with the obvious result. Air embolism per se is mythical and not worthy of serious consideration. The idea has grown out of the use of crude apparatus and technique. When air and blood are agitated for some time in a cold syringe, clotting is inevitable, but even this will not occur if a citrate solution is immediately drawn into the syringe as a diluent.

There seems to be an impression among some physicians that the procedure incident to blood transfusions is a minor operation. This, indeed, is unfortunate. The scientific administration of blood transfusion is one of the most highly technical procedures in medicine and surgery and should be so considered.

When indicated, blood transfusion is a health giving and life saving procedure. Hospitals prepared to administer blood transfusions properly contribute a great deal to the achievements of the science of medicine.

Selective Menus for Satisfied Patients

Is there any reason why patients should be expected to eat food while in a hospital that they would not eat at home?

While it simplifies kitchen work to have every patient on house diet eating identically the same menu, it does not tend to make friends for the dietary department. If Mrs. X dislikes carrots, she will not relish them just because they appear on her tray, and if they appear too often, together with a few more of her pet aversions, the food service in that hospital, so far as she is concerned, will be poor even though the greatest of care has been exercised to provide a well balanced menu.

To obviate this difficulty the use of a selective menu is indicated. Giving patients the choice of two or three meats, three or four vegetables, and two or three desserts does not add a great burden to the dietary department and brings rich returns in satisfied patients.—*Lucius R. Wilson, M.D., John Sealy Hospital, Galveston, Tex.*



First impressions linger, and what the visitor sees as he enters the hospital forms the picture he carries away with him. Some attention to decorative detail will assure an attractive setting for the smart crispness of nurses' uniforms—furniture, for example, neatly attired in its own simple, tailor-made garments. Further assistance will gladly be extended to those who would utilize this means of abetting their public relations program

Two quite different types of material were used in slip covers for these lounges. The bold flowered pattern, while exceedingly effective, would prove confusing in a room of smaller dimensions. Note, too, the difference in the type of covering, one with a pleated flounce and the other plain. Each style, however, looks tailor made.



L. C. Chase & Co., Inc.

There's Many a Slip—

THE point in question is not how to avoid making slips but how to accomplish them deliberately and with complete success, assuming of course, that we are discussing covers for furniture. Slip covers are not to be trifled with these days. More is expected of them than ever before. Instead of apologizing for the appearance of things with a mumbled explanation, "We just finished putting on the covers," the modern housekeeper is more apt to remark, "And don't we look fine in our new upholstery. Of course, you never suspected — nobody does. Let me show you It comes right off, ready for the laundry."

The reason for this change of feeling is self-evident. The slip cover today is form-fitting, presenting a trim, tailormade appearance in sharp contrast to the clumsy wrap around effect of years gone by. Not only is it worn with the smartest effect by chairs that despite years of service are still bearing up under it all, but by the very latest models with their straight, slim lines.

The true test of the modern slip cover lies in the fit — no wrinkles, no spots that sag, no pouches to collect dust and dirt. It must be cut to line and patterned to lie smoothly at all times. This has been made simple by new methods in fabrication and practically foolproof materials.

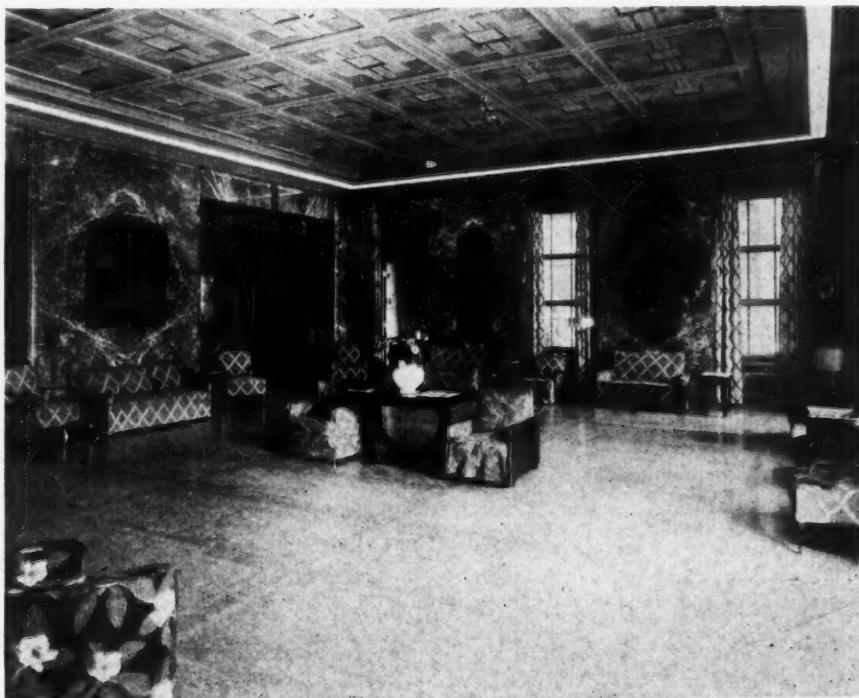
Navy blue, yellow green and peach are good shades in a material particularly well adapted to slip cover use — dust resistant, non-shrinkable, sun-tested and crisp.



L. C. Chase & Co., Inc.

Sad experience has taught that many a slip cover cut to measure in the strictest sense of the term returns from its first trip to the laundry with curious bulges and overlappings that are hard to explain, or even worse, with a strained look, evidence of the unassailable fact that it just couldn't take it. All this has been eliminated, however. Any slip cover today that is worth anything at all can be washed or dry cleaned over and over again and yet retain its original fit and color.

The advent of color tested materials is responsible in part, also the treatment of fabrics by what is known as the Sanforizing process, which solves the shrinking problem. This merely means that the material has been placed on a machine and shrunk with steam and water as many inches as it would shrink in the course of hours of washing.



A main lobby made cool and inviting through use of slip covers. A variety of tones avoids monotony and striking patterns are possible in a large room designed for public use.

The proper selection of materials is important. Whether a professional upholsterer is to be in charge or whether the work is to be done by the housekeeping department, select wisely. This holds equally true in buying slip covers already made. (These are now available for standard types of chairs). Make sure that the material will stand the test.

The texture of the material should be carefully considered. It should be crisp looking, just as fresh as a newly laundered nurse's uniform. It should not crush too easily, must not fade and should possess the ability to shed dust so as not to require constant laundering. For this reason a smooth surfaced fabric is preferable to those that are rough and fuzzy. It should also be closely woven to keep dust from sifting through.

A practical answer seems to lie in the use of mohair fiber materials in smooth weaves. The fact that they shed dust eliminates the need of constant washing, and it is not necessary to press them constantly because they do not wrinkle. And the colors are fast. French ticking and upholsterer's sateen are also impervious to dust. Certain glazed chintz can also be recommended.

Choosing a Color Scheme

A word to the wise is sufficient in selecting colors and patterns. A cool effect is to be desired above all else. Also confine the choice to harmonizing colors which will permit some interchangeability, as for example, medium green, cocoa brown and coral. Any two of these can be used together in the same room, all three if greater variety is desired. Green is always a cool restful shade. Brown, depending upon whether it is a very light beige or a deep cocoa color, is cool or warm, and coral, a distinctly warm shade, can be introduced in any proportion warranted.

Thus, in a room with southern exposure the combination of green and a tone of brown with beige accents will prove restful and will lighten the general tone of the room, making it cooler, and taking away from the hot effect of the sunlight. In a room with northern exposure in which there is need to overcome cold gray northern light, coral, peach or rose or any of the variances of this color combined with brown, tan or peach will minimize the cheerless effect. Green accents can also be used to tie in with the rest of the color triangle.

A print with a warm cocoa colored background, green leaves and a white flower with rose tones has distinct possibilities. Let us see exactly what can be done with it in a room having northern exposure. Pick up the rose by using it at the windows and on the bedspread. Repeat the principal

background brown in slip cover material for another chair, stressing the green by using a green piping. White is generally present in a hospital room and therefore need not be added.

Now let us take the same print and adapt it to use in a southern room. The draperies will be green and the same color used for the spread. Another chair can be covered in a plain green tone and piped with brown or rose.

These two rooms become partially or completely interchangeable. On the other hand, if all the furnishings of the southern room were to be put in the northern room the effect would be cold. In the same way the colorings designed for the north room might prove too warm for a south room.

Of utmost importance is it that the colors selected be soft, restful and cheerful. Designs, too, must be simple and pleasing, the less conspicuous or showy the better.

Now for a few words about the making of slip covers for the benefit of those who would undertake the task themselves or supervise its performance. The more simply they are made the better. There are occasions where pleated flounces may add to the effect, but in general a tailor-made appearance is to be desired.

It is safe to estimate that three to five yards will be required for a chair and ten for a sofa. Patterned material, particularly one having a central design such as a floral medallion which needs to be centered will require more yardage than plain, striped or all-over design materials. One of the secrets of the much to be desired skin-tight finish is to carry the slip cover under the lower edge of the chair, attaching it to a strong piece of heavy cotton, also preshrunk, which will hold it firmly in place. This extra piece opens on three sides, making it possible to remove the cover easily. It is fastened by two hookless fasteners.

Anchoring the Cover

This, however, is only one of the secrets of a perfect fitting cover. The other has to do with so-called "anchors" which are slipped down around the seat and between the sides in the back to keep the cover from wrinkling and getting out of place. These resemble rope and are made of quilt felt. They come by the yard and are cut to fit. Two sizes are available, a one-inch size to use at the seat, and a half-inch size to slip between the sides and the back. A generous tuck-in allowance of at least four inches is required to permit the anchors' being slipped down entirely out of sight.

Close adherence to these basic principles will eliminate the "slip" from slip covers and make them what they are today—form fitting covers suitable for all-year-round wear.

Food Service as a Morale Builder

By WILLIAM A. BRYAN, M.D.

Superintendent, Worcester State Hospital, Worcester, Mass.

HOSPITAL rapport is not the result of any one factor of the administration but rather the effect of all those forces that play upon the patient and regulate his daily life. Certain phases of hospital activity are, however, more important than others in this regard, and of these food service is one of the first on the list. More good will or bad will can be built up by any hospital through the dietary department than by any other single activity within the organization. Food service is the most important morale building factor in the mental hospital and can do more to retard or reenforce other therapeutic agencies than any other single administrative function.

There seems to have grown up in mental hospitals a traditional attitude that denies the patient any understanding as to what constitutes good food service. Hospital personnel frequently feel that psychotic patients neither know nor care what they eat.

The Same Meals—Week After Weary Week

Most administrators will deny that this attitude exists in mental hospitals. It certainly is present in the minds of lay control bodies and those who have the general direction of mental hospitals. That it is present in hospitals seems to be borne out by the little thought and care given to the preparation of menus. The monotonous, never ending repetition of meals recurring each week, prepared in the same way and served on the same day, bears out the contention that too little thought is given to food service. The low salaries paid to those in charge of hospital kitchens and the fact that no well defined standard of training and experience is demanded of the chef who is charged with the responsibility of preparing the food for several thousand people, are further evidence that such an attitude exists. The continuation of the traditional methods of service indicate that administrators have given less thought to this department than its importance demands.

The normal person is difficult to feed without dissatisfaction. Abnormal individuals with their distorted viewpoint on life create problems that almost defy solution. Food is important to all

Poor food exasperates everybody and the psychotic is no different from his normal brother in this respect. The author urges that the traditional attitude of indifference displayed toward the dietary department in mental hospitals be transformed into active interest in making the food service a valuable therapeutic asset

human beings. The psychotic is no different from his normal brother in this respect. But being in the hospital under commitment and against his wishes he does not have the command over the situation that his normal brother has. He has plenty of time on his hands to think about the injustices of life and, as a result, to build up a strong prejudice against the hospital that is restraining him from doing as he wishes. In spite of the inherent difficulties of the situation attempts should be made to improve this most essential administrative function.

Even from the viewpoint of cost, it is worth while carefully considering. The item of food represents the second largest item in the hospital budget. The question of food waste is of tremendous importance and yet it has seemed that waste has been accepted as an act of God and that nothing has been done about it. Yet the last few years of restricted appropriations and curtailed budgets have taught administrators many things that may serve to keep their attention fixed on the matter of waste for years to come. Waste in food can be prevented.

In an attempt to analyze the difficulties that cause dissatisfaction among patients and create food waste certain factors stand out clearly.

Most hospitals buy the best material the market affords and in the case of mental hospitals where

so much food is raised on the large farms there can be no justification for vegetables not being of the best. Yet herein lies a real danger. If the matter of what and how much to raise is left to the man who has the responsibility of raising it he may be tempted to make a good showing by holding his farm products long past the time when they should be served in order to increase his production record. In any mental hospital where the sole reason for raising farm products is an economic one, the criterion of efficiency will probably be farm production rather than best service for the recovery of patients.

Kitchen Needs Must Be Studied

The kitchen of the hospital is the market for the farm produce. The needs of these kitchens should be the deciding factor in the amount and kinds of produce to be raised. To permit the head farmer to increase production without a study of the actual needs of the institution is uneconomical and tends to fill the waste cans. And what is more important, attempting to force certain kinds of food on patients beyond the saturation point sets up an irritation that is not good therapy. A vegetable cannot be served week after week. A program of this kind not only fills the waste can but irritates the patients.

Farm production plans should be made carefully at the beginning of the season, based upon actual requirements of the kitchen. Such a planning chart tells the farmer the kind of produce to be grown, the amount needed and approximately the dates of delivery. This enables him to make his plantings at the proper time and does away with the tendency to plant all crops at the same time and later in the season flood the kitchen with a quantity of vegetables that cannot be consumed.

Why the Food Is Unpalatable

Poor preparation of food is a factor that explains much of the difficulty. The best materials in the world can be delivered to the kitchens and not be fit to eat when the food is served to the patient. Administrators have not set up such standards for cooks and chefs as will ensure the proper preparation of food. Control bodies have not seen the importance of paying better salaries for the experience and training necessary for the chef. Good raw food is purchased and turned over to a group of poorly paid cooks with insufficient experience. They are expected to turn out palatable food with little waste.

The experience and training necessary to make a good chef is equal to that needed to train a physician. Some attempts have been made to em-

ploy dietitians, but it should be pointed out that mere graduation from a school does not qualify an individual to meet the many problems of the hospital kitchen. Dietetic schools must reorganize their training along more practical lines if they are to be of any assistance to the mental hospital in its efforts to work out the food problem economically and for the good of the patient.

Food that is to appeal to the patient and reduce waste to a minimum must be palatable and of as great a variety as possible. Here is where the skill of the chef comes in. He may be willing and careful in his work but unless he has had adequate training and experience he is not able to plan varied menus. Changing the shape of a vegetable is equal to changing the vegetable and gives variety. Carrots sliced and then diced make for variety. Proper seasoning is essential.

It seems that the answer to the personnel problems of mental hospital kitchens is to work out the exact techniques needed and then organize schools for chefs who wish to specialize in this type of food preparation. I am unacquainted with a place in the commercial world where the young man can get exactly the type of training needed to fit him for the difficult problems that come with the preparation of food for a large mental hospital population.

Trained Cooks Are Needed

State mental hospital services could organize such schools in their respective states and would be able in time to have an adequate supply of well trained cooks for their institutional kitchens. This project, together with the recognition on the part of the control bodies of states that salaries for chefs and dietitians must be commensurate with the service rendered and that definite standards of training and experience must be required, will bring the kitchen of the mental hospital to a point where it will be of real therapeutic value in the treatment of psychotic patients.

The service of food is another important factor in food waste. The raw material purchased may be the best obtainable, the preparation may be excellent but the entire good effect may be lost because food is not served in an attractive manner. It is a matter of observation that another hospital tradition has interfered with progress along this line. Because of the little personal attention that has been paid by administrators to food service and because there have been no well defined standards set up for such service, the nursing personnel have developed the idea that such service is a disagreeable chore to be performed in the easiest way possible and in the quickest time.

The importance of the temperature of the dish, the way in which it is given to the patient and other small niceties of service have never been emphasized to the nursing group as they should be. Service of food is an art and a business, and if it is to be carried out so as to be an asset therapeutically, it must be put into the hands of those trained to carry it out and whose main responsibility it is. It cannot be made incidental to other duties. The large patient population in the mental hospital makes the method of food service a matter of considerable importance.

Small Dining Room Has Advantages, but—

Many administrators believe that small dining rooms each caring for from twenty-five to 100 patients, and served from a central kitchen, is the ideal method of service. It is certainly true that the small ward dining room has many advantages and therapeutically there is much to be said for it. The small unit classifies patients better, the room itself can be made attractive and if it can be properly supervised the service can be much more satisfactory.

These advantages are outweighed, however, by the fact that it is clearly impossible to supervise properly the large number of units necessary to feed a population of the size found in most mental hospitals. The cost of having each one of these units in charge of trained personnel would be prohibitive. It is necessary to place the food service in the charge of ward nurses and attendants whose standards of service may not be as high as is desirable.

Again, there is the difficulty of getting the food from a central kitchen to the individual dining rooms and maintaining the proper temperature. Temperature of food is an important part of good service. Hot food must be served hot and cold food cold. The transportation of food over long distances through drafty corridors without temperature change is an impossibility even in these days of insulated food containers.

Not Best for the Patient

And last, there is no possibility of giving the patient any choice of food in this method of service. Yet to let him choose what he shall eat is an important way to save waste and it is an excellent way to keep up the patient's morale. It is the best kind of therapy to place some responsibility on the mental patient even in such a small matter as the selection of his food.

Most mental hospitals have abandoned the small unit dining rooms for the reasons indicated above and have substituted the congregate dining room. These great halls, with a seating capacity of from

1,000 to 1,200 patients, are an improvement over the smaller units so far as better food is concerned. However, usually the patients file in and out and go through the major steps of their meal to the tap of a gong. There are two main objections to such a method of food service from a psychologic viewpoint. In the large congregate dining room all patients must remain the same length of time. There is no variation in relation to the needs of the individual patient. The patient who eats rapidly and is soon through his meal must remain seated until the slowest is through. This frequently causes the expression of violence in unstable and restless individuals.

In addition the classification of patients is frequently a source of trouble. The arbitrary seating arrangements usually followed are not always for the best interest of the patients and at times patients who are antagonistic to each other are seated together. This frequently provokes a reaction on the part of one or the other.

Therapeutically Cafeteria Is Best

The only feasible method of food service for a large population that gives all the essentials of good service with a minimum amount of disadvantage is the cafeteria system. This fulfills most requirements. It permits the closest kind of supervision by trained people. The actual service is carried on by employees who are hired for the specific purpose and can be required to meet certain standards. The food can be served at the proper temperature and above all it permits the patient to choose his food and his place at table.

Therapeutically the cafeteria is one of the most valuable agents in the hospital. If properly supervised it allows for good habit forming on a large scale. Patients are held to a high standard of dress and deportment while in the dining room and after a time they acquire habits of neatness and cleanliness that are frequently carried over into their ward life. The responsibility that the service places upon the patient for the selection of his food, the place he shall sit, whom he shall sit with and finally the length of time he may stay, is good psychologically for practically all psychotic patients.

But no matter what method of food service is used, back of it must be a careful study of its psychologic effect upon the patient. It must be organized so that responsibility may be fixed and so that there may be no excuses or evasions for poor service. This responsibility should center in one person and be continuous from the purchase and storage of food to the preparation and service of the food to the patient.

Someone Has Asked—

What Price Endowment of a Private Room?

The hospital is frequently requested by fraternal or other organizations to state its policy on the question of the endowment of rooms for the use of such groups. Time was when institutions received such queries with a feeling of satisfaction. They represented not only an evidence of community interest in the hospital but also a source of actual income. Scarcely more than a decade ago an offer to endow a room for \$5,000 was gladly accepted. Today, many institutions find themselves burdened with obligations of endowment which represent an actual loss instead of a profit.

It is not profitable for the average hospital to set aside a private room for the sole use of any organization unless it can earn by so doing from \$1,200 to \$1,500 per annum. At current interest rates it can be readily seen that a sum of at least \$30,000 would be necessary to approximate the latter requirement. Such a figure is, in the great majority of instances, far beyond the means of the interested group.

A semiprivate or ward bed may, of course, be endowed for a considerably smaller amount. As a general thing, however, unless restrictions on the occupancy of such a room are definitely set, it will be wise for the hospital courteously to reject offers of endowment at amounts that are below the actual cost of maintenance of such facilities.

How Can We Interest Members of Visiting Staffs in Autopsies?

Hospitals approved by the American Medical Association for the training of interns are required to bring to autopsy at least 15 per cent of their institutional deaths. The executive of the hospital submitting the above question is not concerned because she is failing to secure the required percentage of postmortem examinations, but because she feels that the full scientific value of those being performed is not realized.

The autopsy room in the average hospital is inhabited largely by the pathologist and the intern on this service. Occasionally an assistant or

associate of the visiting chief is observed there, rarely the chief himself. This is a regrettable situation and bespeaks a rather low scientific atmosphere in the hospital where it is found. Postmortem work offers one of the best teaching possibilities in the whole hospital, yet there are physicians who dare not face the stark errors of diagnosis which are sure to confront the best diagnostitian.

To encourage the presence of staff members at autopsies, the postmortem room should be well lighted, properly ventilated and heated, with comfortable, raised seats for the use of observers. Each autopsy should be, in effect, a clinicopathologic conference. The programs of hospital staff meetings should be largely concerned with the comparison of antemortem and postmortem findings. A projection apparatus for visualizing photomicrographs is most useful.

The pathologist should be the creator of an eternal clinical dissatisfaction on the part of each physician on the staff. Many postmortem examinations are worthless because no scientific good accrues from their performance. When autopsies are attended by a full quota of staff members this cannot be the case.

Can Attendants Be Used to Supplement Nursing Staff?

For the past few years we have employed an attendant in each department to supplement the nursing service. It is her duty to pass wash water and mouth wash to the patients before breakfast and at four o'clock in the afternoon. After patients are discharged she strips and makes up the bed. She also cleans the room if the general maid is not on duty.

She assists with carrying food trays to patients; feeds those who are unable to help themselves, and is responsible for the patients' flowers. If supplies are needed from the drug or supply room, or specimens must go to the laboratory, she is delegated to these tasks.

It is the duty of our attendants to clean and return surgical supplies and articles to be sterilized. We have found their services of great help to our nursing staff.—FLORENCE H. WESSLUND.

Can a Small Hospital Afford a System of Cost Accounting?

No, if by cost accounting is meant a continuous apportionment of all salaries and expenses in terms of the revenue producing departments. On the other hand, any hospital can and should make periodic cost analyses of the various revenue producing departments, such as day-rate service, x-ray care and the operating room. This can be done by establishing a formula for apportioning the expenses on a work sheet, prepared at the same time that a summary of financial operations is made. Once the ratios for apportionment to the various revenue producing departments are established, the actual procedures need require only a few hours at the end of each fiscal period.

"Cost analysis" is a much better term than cost accounting, inasmuch as the apportionment to revenue producing departments need not involve establishing an additional or supplementary group of double entry accounts.—C. RUFUS ROREM.

What Routine Is Necessary to Transfer a Patient?

Two types of transfers are made in a hospital: one at the request of the patient or of his relatives, the other at the request of the physician in charge, made necessary by the physical condition of the patient.

When a request for a transfer is made to the admission officer by some member of the patient's family, it is her duty to contact the business office to see (if the patient is going into more expensive accommodations) that the account has been paid to date and to explain to the patient's relatives the regulations of the hospital as to the manner in which the advanced rate should be paid. The admission officer then calls the physician in charge to make sure that the physical condition of the patient is favorable for the move, and if he agrees to the transfer she notifies the floor supervisor, in writing, of the transfer.

Next, the superintendent of the hospital is informed that a transfer is to be made and a brief report on the apparent financial status of the account is given him. When the transfer has actually been completed, it is the duty of the admitting officer to notify the business office, in writing, so that no misunderstanding on the difference in room charge will arise. She also must notify the telephone operator of the change so that the patient may receive messages promptly.

In the second type of transfer, when the physician has requested the change, the procedure is much the same only that it is the duty of the admission officer to see the patient or his relatives to tell them of the doctor's desire, and if there is a change in the daily rate to make proper financial arrangements with them.

When a physician is notified of the proposed transfer of one of his patients, the physical welfare of the patient is his responsibility. He must be aware of the condition of the patient and give his permission for the transfer if the patient's condition is such that a move will not be harmful to him.

Since it is the duty of the business office to watch all accounts closely, its responsibility in the matter of a transfer is to make sure that the account has been paid to date and to find out tactfully whether the patient is able to stand the extra expense, provided he is going into more expensive accommodations.

The floor supervisor's responsibility rests in seeing that the order received from the admission desk is carried out promptly, and that the patient is made comfortable with the least possible disturbance to either the patient or his relatives. It is also her duty to see that the room vacated is made ready for occupancy and to notify the admission desk as soon as it is available for another patient.—E. L. SLACK.

Must the Physician See That His Records Are Complete?

The question does not say "write" complete and accurate records. It does say "see" that his records are accurate and complete. Records may be written largely, and in some cases almost completely, by a medical historian or an intern or resident, but the initial responsibility for seeing that the record is accurate and complete must and does rest upon the attending physician.—W. S. RANKIN, M.D.

What Laundry Should Be Allowed Employees?

The ability of the institution to furnish laundry service needs to be considered, and the cost of such service should be regarded as part of the employees' compensation. A great many employees take for granted this and other services furnished by a hospital, without regarding such services as assets, and without proper appreciation of their value.

If an institution operates its own

laundry and is in a position to furnish this service, it will prove economical. Grady Hospital, Atlanta, Ga., supplies laundry service to all resident employees and regards this as part of the compensation paid. We launder only smocks, uniforms and overalls of nonresident employees. This enables us to require cleanliness and neatness on the part of employees without adding to their upkeep.

We do not want to enter into competition with privately owned and operated laundries, by taking the attitude of rendering service to non-residents and collecting a fee for such service.—J. B. FRANKLIN.

Should a Surgeon Discharge a Patient Who Will Not Pay His Bill?

An embarrassing situation recently arose in a Southern hospital. A patient was admitted to a private room with a fracture of a long bone and kept under treatment for several weeks. A large bill to the hospital accumulated. The surgeon refused to discharge the patient because he did not care to take the responsibility of sending the patient home before union was complete.

The superintendent of the hospital, having no authority to discharge the patient, was at a loss as to the course he should pursue. The situation was particularly complicated because the attitude of the surgeon was communicated to the members of the patient's family and generated a reaction of financial indifference on their part.

Whenever such a situation arises the welfare of the patient must, of course, be considered first. It seems that the superintendent of the hospital has the right to demand that the bill be paid or the patient be transferred to a general ward or removed from the hospital. Perhaps the hospital should never have allowed a bill of such proportions to accumulate without some practical provision being made for its payment. The only possible solution in this case lay in demanding the removal of the patient, who was in a cast, or in insisting on his transfer to a general ward.

The social service department having investigated home conditions was of the opinion that insufficient care could be given there. The patient was

transferred to a hospital ward to be discharged to his home as soon as the cast could be removed or suitable home conditions provided for his care.

The attitude of utter indifference and defiance of the rights of the hospital displayed by the relatives of some patients is astounding. In this instance, unless the patient would suffer thereby, the superintendent had a perfect right to demand payment of the bill or a discharge from the hospital. To grant free care in a ward is an act of much generosity on the part of the institution.

The surgeon, of course, would have been relieved of his responsibility were the patient to sign a release form, which in this case he refused to do. In the last analysis, medical fair play must be guaranteed even to a defiant and dishonest patient although the hospital may suffer a financial loss thereby.

Who Should Treat Members of the Hospital Personnel?

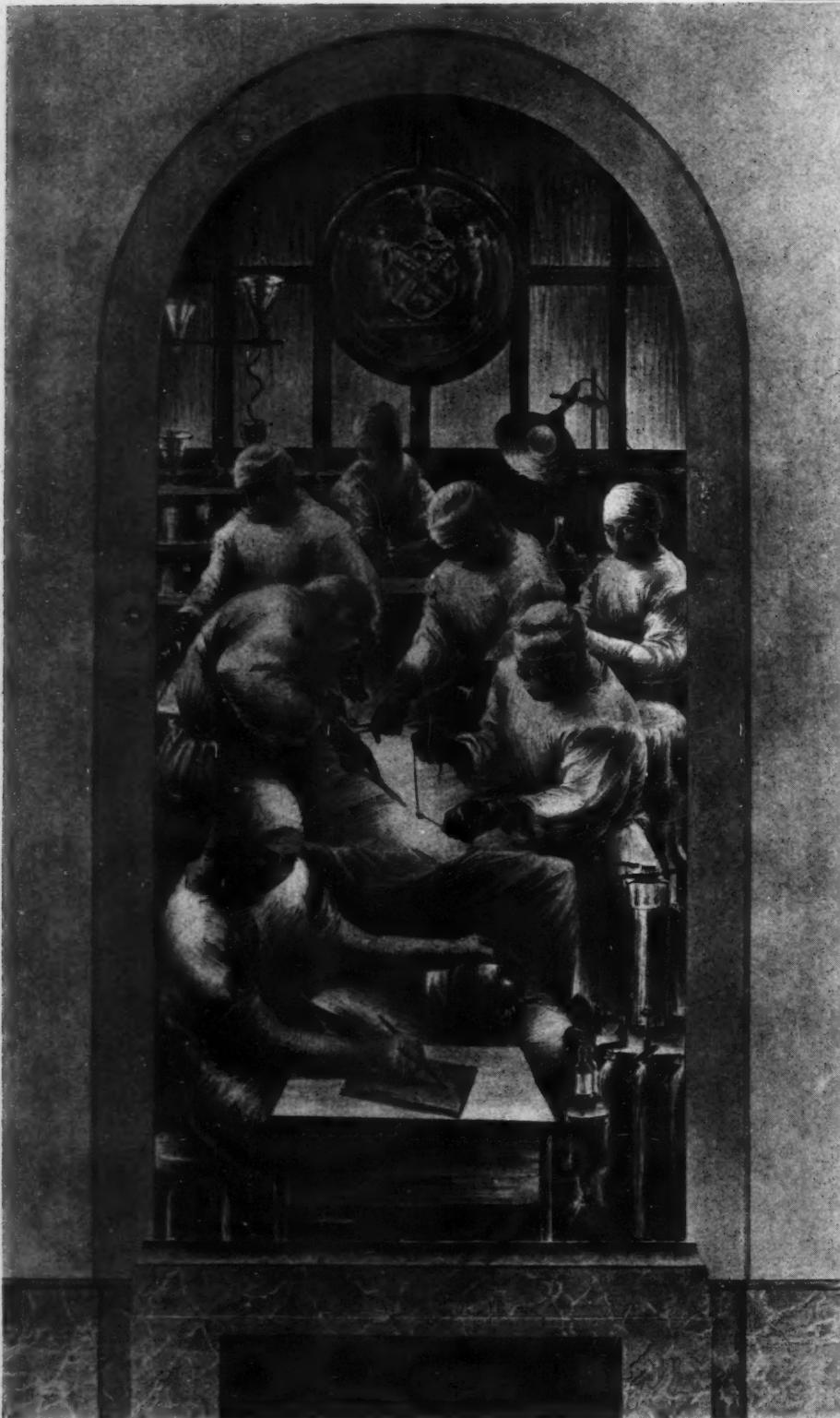
The question is asked by the superintendent of a hospital in which petty jealousy exists among the staff because all are not called upon to treat the ailing members of the hospital's employee group. In this hospital certain physicians consider it a personal affront because the senior surgeon and internist are called to care for ill nurses.

Such an attitude is childish in the extreme. If a chief resident physician is available he may well be first called when a nurse requires medical attention. If the illness is more than trivial he should request the aid of the surgeon, internist or other specialist on duty at the time. If the school is large, the board of trustees sometimes elects an official physician.

If a medical director of skill and experience is included in the hospital's personnel he should perhaps treat sick nurses and by so doing take the place of the family doctor. He thus becomes in fact director of the school's department of health. It is he who decides whom to consult when the services of a specialist are required. No matter how petty an attitude is assumed by staff physicians, the best and most considerate medical care should be given nurses when they become ill.

If you have any questions to ask, the Editors will be glad to discuss them in a forthcoming issue

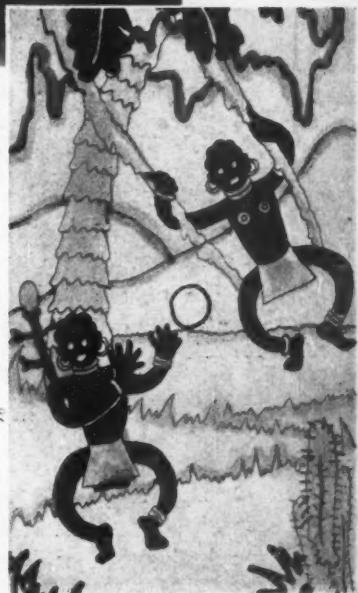
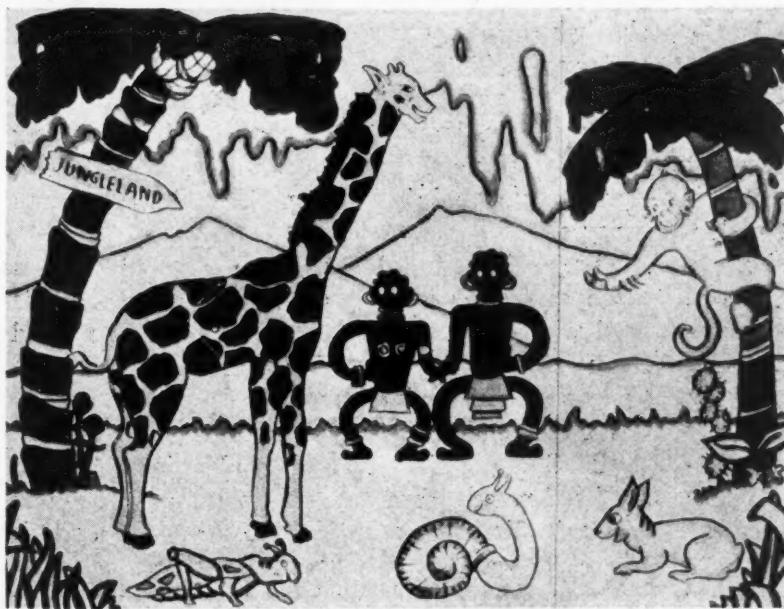
Faces Turn to Hospital Walls



Bare wall space in New York City hospitals is rapidly acquiring new interest through federal art project activities. No less than 51 mural assignments will be placed in these institutions. About 33 of these are or will be done in oil on canvas, about 11 in oil on a prepared wall and the balance in other mediums. A detail from a mural being executed for the Queens County Hospital is shown above. The complete size of the painting, which has for its subject "The Development of Medicine" is 360 square feet. It will adorn the walls of the incoming and outgoing patients' room. One section of it is a fresco, picturing preventive medicine and surgery, prepared for the medical board conference room at the Harlem Hospital. This panel, the fifth, reveals the contribution of anesthesia to modern surgery, discovered in the late nineteenth century.



What better place for the artist's imagination to run riot than in the children's department! In the Greenpoint Hospital the children's medical ward and solarium has a country landscape and circus as a background—850 square feet of it to be exact—with colors gay and bright, and plenty of action in the many amusing scenes depicted. It is done in oil on a prepared wall.



"Life in the Jungle" might very well be the subject for the mural which decorates the children's ward of Harlem Hospital. Instead the artist chooses to call it "Fairy Tales." The principal figures are seen in the two scenes completed, in the midst of thrilling adventures with some of the wild folk of jungle land, from which they recover sufficiently to enjoy life swinging beneath a coconut palm.

Impressions of a Student Record Librarian

By IVY HUBERT

St. Mary's Hospital, Duluth, Minn.

A MONTH before our medical records course started, we were five footloose college graduates prepared for various occupations; it was mere chance that we possessed prerequisites for professional training in an uncrowded field. The change from college to St. Mary's Hospital, Duluth, one of the four hospitals appointed by the Association of Record Librarians of North America to train student librarians, was sudden.

Not until we attended a hospital conference of the American College of Surgeons, did we realize the importance of medical records and the possibility they offered for a satisfying occupation.

At this meeting the director of our course, Sister Patricia, who is also superintendent of St. Mary's Hospital, read a paper dealing largely with the newly established school. The "coup" of the morning was her presentation of the students themselves to the assembled delegates. "Exhibit A" we were called. An enterprising reporter had us photographed and afternoon issues of St. Paul papers carried the picture.

What the Course Includes

The schedule for our nine-months course includes classes in medical and social terminology, physiology and anatomy, medical ethics, statistics, medical shorthand and *materia medica*, either at St. Mary's Hospital or at the College of St. Scholastica. Two periods a week are devoted to lectures, by practicing physicians, on clinical disease. Bi-weekly conferences are held in the record room to clear up the incomprehensible and prepare us for our registration examination. Our services include a month in each of the following departments: admitting office, laboratory, x-ray department, operating pavilion, out-patient department, record file room and birth and death record keeping, while the last three months of the course are spent in the record office itself where we do actual work under supervision. The filing projects include the building up of individual per-

sonal sets of files according to the Massachusetts General Hospital New Standard Classification of Diseases, and Doctor Ponton's Alphabetical Nomenclature of Diseases and Operations. We also have had lectures explaining the Standard Nomenclature.

One of our projects was the compilation of the annual narrative and statistical report. This called into play all our individual talents and training: the two years at the Chicago Art Institute, the minor in journalism, the flair for mimeographing.

In the future, student record librarians may come to St. Mary's Hospital after three years at the College of St. Scholastica, fully equipped with theoretical knowledge, spend their fourth college year wholly in practical training and graduate with B.S. degrees in Medical Records Library Science.

Already inquiries and requests for trained medical record librarians have been received by St. Mary's. One request, from the Mayo Clinic, asked for two graduates. Such a dearth in the field promises us our anxiously awaited futures.

The major event of the second half of our course was the field trip to the University of Minnesota Hospital, the Minneapolis General Hospital, and a visit and tour of the record room and the whole of the Mayo Clinic, Rochester.

For medical research the punch-card system of recording data is used in the record department of the University of Minnesota Hospital. All necessary information, including identification material and diagnoses, is coded and then punched in finely ruled cards. Other machines automatically sort out and count cards containing specific information, or automatically tabulate the material in printed form on a large sheet. Were several hospitals to cooperate and use a uniform code, each would have all the advantages of the entire mechanical set-up by using the punching machine only and sending coded material to a centrally located institution for tabulation and reports.

Charts for special study are selected from a large group by sorting cards. A hectograph is used when several copies of one form are needed for various purposes, eliminating all errors in recopying and saving time.

We left the University Hospital for the Minneapolis General Hospital, where Marjorie Goetze, the head record librarian, showed us her office and the main file room beautifully in order as a result of an ERA project. In examining charts we came upon an amusing form new to us—receipt for a baby.

Which Student Nurse Will Succeed?

Tests described here have been devised to answer the question

By EDITH MARGARET POTTS, M.A.

Albany, N. Y.

OLD treatises on nursing, and not a few modern ones meant for use in the home, direct the nurse to test the temperature of the baby's

bath by holding her elbow in the water. The modern nurse is taught the much more accurate method of using a thermometer. The hospital of today would not be satisfied to have it said of a patient that he "had fever." The exact degree of his variation from the normal is carefully measured.

Such instances of the substitution of exact measurements for less accurate ones might be multiplied almost indefinitely.

With the improvement of other measurements has come the improvement of the measurement of the traits, aptitudes, and abilities of persons. The instruments used for this measurement are known as psychologic tests or measures. Like other measures, these tests make no attempt to discover all that a person is, can do or knows. They are so constructed as to sample his reaction to typical situations, or to sample his ability to do work similar to that which he wishes to attempt, or to sample his knowledge of a given subject. From these samples—if they have been selected wisely—it is possible to make fairly definite statements concerning the entire personality, or ability, or knowledge of the person tested.

A New Yardstick

During the past few years much has been written and more said about the use of psychologic measures in schools of nursing. It has sometimes been intimated that if such tests were to be used in the selection among applicants for admission to the school a new and untried method would be being installed. Nothing could be further from the truth. Applicants have always been measured before being admitted. What would be new would be the substitution of a measure which remained constant from day to day, class to class, or even school to school for one which varied according to the time of day the applicant was seen, the number of vexatious circumstances which had oc-

curred during that day, the color of the dress which she was wearing or any one of a hundred other conditions.

Practically every director of a school of nursing has set up a standard of her own with which to measure applicants. If used in its entirety this has often proved to be a good standard. Unfortunately one part of it may be applied to one person, another part to another. It is difficult, if not actually impossible, to compare a person being thus measured either to the standard or to another applicant. The purpose of using tests in the admission of applicants is simply to set up a standard which shall remain constant and to apply the whole of that standard to every applicant—thus making it possible to see each person in her relationship to the measure and also in her relationship to all other persons measured by it. With this knowledge before her the director can then more wisely and more fairly make her selection among applicants.

Study Shows Large Proportion of Failures

That not every person who desires to enter a school of nursing is fitted to do so would probably readily be conceded. Just how great is the need for better selection may not be so readily recognized. One study of the students admitted to schools of nursing in one state demonstrated that many persons are being admitted who do not complete the course. Of the 15,398 students admitted during a three-year period 3,555 or 23 per cent had left the schools by the end of the preliminary period.¹ Over two thousand other students failed to complete the course, remaining in the schools for periods of six or seven months to more than two years.

What did this situation mean to these schools financially? The same study has demonstrated that while students who remain in the school and graduate receive in maintenance and allowance an average of twenty-eight and eight-tenths cents for each hour which they spend on the hospital

¹Horner, Harlan Hoyt. *Nursing Education and Practice in New York State with Suggested Remedial Measures*, University of the State of New York, Albany, 1934.

wards, students who were eliminated during the preliminary period received an average of one dollar and one cent for each hour they spent on the wards. This is a high price to pay for the type of service which a preliminary student can give.

These figures have considered only the actual maintenance of the student and whatever allowance may have been given her. There has been no attempt made to estimate the cost of educating

TABLE I—RELATION OF STUDENT NURSE'S INTELLIGENCE SCORE TO SUCCESS IN PRELIMINARY PERIOD

Intelligence Test Scores	Number of Students Within Each Step Who Entered			Percentage of Students Within Each Step Who Remained Left		
	Entered	Remained	Left	Entered	Remained	Left
165-212	15	14	1	100	93	7
145-164	48	45	3	100	94	6
125-144	82	73	9	100	89	11
105-124	83	56	27	100	68	32
85-104	62	42	20	100	68	32
65-84	19	11	8	100	58	42
45-64	6	0	6	100	0	100

her, since the figures for this purpose have not been available. Practically any instructor of nurses will agree, however, that those students who eventually leave the school because of failure need during their stay in the school an entirely disproportionate amount of the time and strength of the instructor. Could the time spent on these ultimately failing students be given to planning special work for the above average persons in the class and to meeting the small lacks of the otherwise average ones, the return to the school would doubtless be greater and the quality of nursing in the hospital improved.

Another difficulty which sometimes arises when too large a proportion of inadequate students have been accepted into one class is that elimination becomes a matter of dropping the very poorest students only rather than all those who should be dropped. Because of this there have been many persons retained in schools of nursing who have no reasonable chance of being successful as graduate members of the profession, and who, worse than this, cannot safely be permitted to care for the sick.

Even the most enthusiastic advocate of the use of tests as a factor in the selection of applicants does not believe that by such use alone satisfactory students could be unerringly selected. However, there are certain definite ways in which tests, added to the information already obtainable concerning students, might lessen markedly the number of students admitted only to fail. A study of some three hundred and fifteen students tested immediately after their admission to schools and

then followed through their preliminary period demonstrated clearly that as intelligence fell below a certain level the chances of the student's remaining in the school even through the preliminary period decreased. This can be seen from the figures in Table I.

What does not show in Table I is the extra time spent on students who ultimately failed, and how many of those in groups with scores between 65 and 124 were able to carry the classwork of the preliminary period but proved incapable of meeting the stress of later periods in the school, where they were thrown upon their own resources and had to meet difficult situations and make rapid decisions. From a financial standpoint alone it would have paid to have admitted only those of higher intelligence, as will be seen from Table II.

Had only those students with scores of 125 or better been admitted, the cost per student re-

TABLE II—COST OF EACH STUDENT RETAINED IN THE JUNIOR CLASS ACCORDING TO SCORES MADE ON INTELLIGENCE TEST

Intelligence Test Scores	Number Who		Cost per Student Retained
	Entered	Were Retained	
165-212	15	14	\$214.28
145-164	48	45	213.33
125-144	82	73	224.65
105-124	83	56	296.43
85-104	62	42	295.24
65-84	19	11	345.45
45-64	6	0	Total loss
Total Group	315	241	\$261.41

tained in the junior class would have been only \$219.69. This saving of about forty dollars per student retained should ultimately become a considerable amount. Since this table was computed on the basis of a cost of fifty dollars a month for the maintenance of a student and included no other figures, schools might really be expected to make a greater saving than this.

Of course the objection will come that to have admitted only these 145 students would have left in the school only 132 juniors instead of the 241 who remained from the group of 315 students. That is conceded, in fact is stressed. The present situation in the nursing world is such that the approximately one hundred mediocre nurses thus saved to the profession will probably have a difficult time finding jobs after their graduation.

The reverse situation is also true, however, and if these schools had had available applicants with more ability they might well have admitted and graduated them to fill some of the many positions for superior nurses for which there are not a sufficient number of well prepared competent applicants. To have had 241 of these superior students remaining in the school, however, it would

have been necessary to admit only 263 persons with intelligence scores above 125 instead of the 315 actually admitted. The total saving would have been well over ten thousand dollars. Such a saving is surely worth considering.

So far we have considered the measurement of only the abstract verbal intelligence of a nurse. Other factors also enter into her success or lack of it. The student who has a reading ability equal only to that of a fourth or fifth-grade child stands but little chance of being able to carry the class-work in a school of nursing, even though her abstract verbal intelligence is fairly good. The student who is unusually lacking in manual dexterity may also find the course too difficult for her. Fortunately but few persons otherwise likely to succeed show this particular difficulty.

Personality Difficulties Are Common

Perhaps next to lack of intelligence the most common and the greatest handicap to success as a nurse is a personality unfitted for the profession. Here again measures are available which have been used and then validated against the actual performance of the students in the school. Hence we are able to construct a table similar to those already shown and demonstrating the number of chances in one hundred which a given student has of success, judging from her personality scores. Studies of high school students have also proved that certain personality factors play a part in modifying scholastic achievements.¹

Even those who believe that it would probably be of value if applicants could be tested before admission sometimes feel that such a course would be extremely difficult and expensive. It need not be either. In New York State some seventy schools have been cooperating in such an experiment during the past year. Testing centers were established in various areas of the state in high schools or colleges in such locations that few students had to travel as far as fifty miles to reach one of them. Testing periods were spaced so that both early and late applicants were cared for. Applicants were referred to the testing agency by the schools of nursing and each applicant paid a fee of five dollars for the battery of five tests which yielded twenty-five scores. Reports were sent directly to the schools with recommendations as to whether or not it was desirable to admit the applicants.

Over two thousand applicants were thus tested during the summer months. It cost the schools of nursing only the effort of supplying each candidate whom they wished to have tested, with a

card of application for the examinations. In some few cases, schools which desired to have applicants given a physical examination also, kept out of town applicants in the dormitory over night. The value received has been great.

Of course the schools differed in their uses of the test results. Some admitted only students recommended as having at least a fair chance of success. Others admitted almost all students tested—perhaps somewhat experimentally. Now at the end of the first semester in the schools it is being clearly demonstrated that the recommendations were fairly accurate. Instead of the 23 per cent of students whom Doctor Horner found to have left the schools by the end of five months, only about 14 per cent of the students admitted in September have been eliminated.

If we compare those students who were recommended and admitted with those who were admitted in spite of recommendations to the contrary we find that only about 11 per cent of the former have left the school while over 31 per cent of the second group are already gone. Such comparisons might be multiplied almost indefinitely.

It would not be desirable to conclude a discussion of the use of psychologic tests for selecting students without including some cautions. The first of these is the selection of the tests to be used. They should measure the traits or abilities that it is desired to measure. No matter how well the test may have been made, if it is not suitable for the purpose at hand it will prove of but little value. Care should also be taken to have the test well constructed.

Scoring Should Be Done by Two Persons

Tests must be carefully administered. Even a slight variation in the method of administration may totally invalidate the results obtained—just as measurements made with a stretched or shrunken tape measure are not to be relied upon.

Scoring must be carefully and accurately done. All scoring and all computations should be done at least twice, preferably by two persons.

But perhaps the most important caution is that the interpretation of scores be done by a person who has special training for this work and can interpret the scores in terms of nursing success. This requires first that the interpreter be a person with thorough psychologic training and good knowledge of tests. But this is not enough. The interpreter must also know how score placements on these tests agree with success in schools of nursing. Such knowledge presupposes the testing of many student nurses and the following of these students through the school, with constant comparison of their success with their scores.

¹Turkey, Austin Henry. *Factors Other Than Intelligence That Affect Success in High School*. University of Minnesota Press, Minneapolis, 1930.

Controlling the Maternal Death Rate

By MARGARET TURNER

Obstetrical Supervisor, Sterling Public Hospital,
Sterling, Ill.

SMALL hospitals receive patients in all stages of obstetric complications, the physicians are not specialists and it is of utmost importance that such facilities as the hospitals have be put promptly at the service of the patient.

There is an unavoidable mortality in childbirth, which comes from disease of the uterus, adnexa, pelvis and from general affections aggravated by parturition, but it is small compared with the preventable mortality. The importance of adequate care at the time of delivery is conceded by all. Adequate delivery care requires the careful management of the normal labor, the maintenance of aseptic technique and proper handling of any abnormalities. These in turn imply an attendant who has not only skill but patience and has good judgment, sufficient trained assistants and clean surroundings.

A Fine Record

During the last five years there were 1,016 confinements with ten deaths in Sterling Public Hospital, Sterling, Ill. One mother was admitted in extreme toxemia and convulsions, three died of puerperal albuminuria with convulsions, one of pneumonia, one of myocarditis and dystocia secondary, one of hemorrhage, one of coronary embolism and one of myocarditis complicated with severe labor. None died of puerperal infection, which causes half of the maternal deaths in the United States today.

Other important causes of death throughout the country are accidents of pregnancy, puerperal hemorrhage, accidents of labor, phlebitis and embolism. Nearly half of the deaths in our hospital statistics can be classed as preventable deaths, and can be properly charged to inadequate medical care before admission.

The obstetric department must be segregated from all others in the institution. A laboratory under the supervision of a well trained technician is indispensable. The admitting rooms, labor rooms and delivery room must be equipped for any emergency.

The nursing staff must be experienced and well trained. Nurses working in this department must not be allowed to attend other cases during their time on this service. Student nurses must have good instruction and experience under close supervision in both prenatal and postpartum care. All attendants must wear masks in the delivery room.

There must be facilities for immediate isolation of all cases of infection, elevated temperature or any other condition that might be dangerous to the welfare of other patients in that department.

Clinical records must be kept on all patients. They should include past history, daily record of condition of patient, condition of the breasts, height and firmness of the fundus, amount and color of lochia and temperature every four hours.

The admittance or labor room must be equipped with all things necessary to prepare the patient and care for her until the time of delivery. Blood pressure readings and urinalysis are important and should be reported at once.

The procedure of delivery must follow the most rigid aseptic technique comparable to that of any abdominal operation. Emergency facilities, such as hypodermics, intravenous solutions, oxygen, carbon dioxide, must be available to counteract shock and hemorrhage.

The nurse must keep close observation of the patient the first hours following delivery. The fundus must be felt frequently and kept firmly contracted. The chief dangers the first twenty-four hours are shock and hemorrhage.

Aseptic technique should be carried out when changing the pads, removing sutures or making any examination in which infections may be introduced. Frequent catheterization every four or five hours is said to be less dangerous than the results of distension.

Aseptic care of the breasts is important to prevent abscesses and other disorders of the breasts.

Adequate Prenatal Care Essential

It is fair to say that adequate prenatal care reduces mortality one-half. The fault does not always lie with the doctor or the hospital, but they are to be criticized if every opportunity is not taken to educate the public.

Until ideal labor conditions are approached more closely and preparation for prenatal care instituted in every case, there will continue a death rate, mostly preventable, and a continued stream of women entering our hospitals seeking relief from the bad effects of childbirth.¹

¹Read at the meeting of the Tri-State Hospital Assembly, Chicago, May 6 to 8, 1936.

The Laundry Manager Should Route the Work, Train the Worker

By W. A. REINHARD

Director, Department of Engineering,
Laundryowners National Association

THREE basic factors may be said to influence laundry plant production: proper methods; skill of the operator; willingness and effort of the operator. These factors can of course be further subdivided. For example, the first will be composed of machinery, layout, condition of equipment and working conditions. For "skill" the subdivisions will be proper training of the operator, and time and motion study. In a future article we shall discuss in detail the third factor, "willingness and effort of the operator." This article deals only with proper methods and skill.

The first requisite for production efficiency is the proper arrangement of machinery for the plant layout. Every step operators take costs money; hence, the fewer the steps, the lower the cost. The number of steps taken is, of course, governed by the arrangement and location of machinery and equipment in the plant. The necessity for giving plant layout a great deal of study and contemplation thus becomes apparent. Under the pressure of getting the work out, one is apt to forget that if a machine is misplaced, either in respect to other equipment or to the convenience of the operator, continuous lost time results.

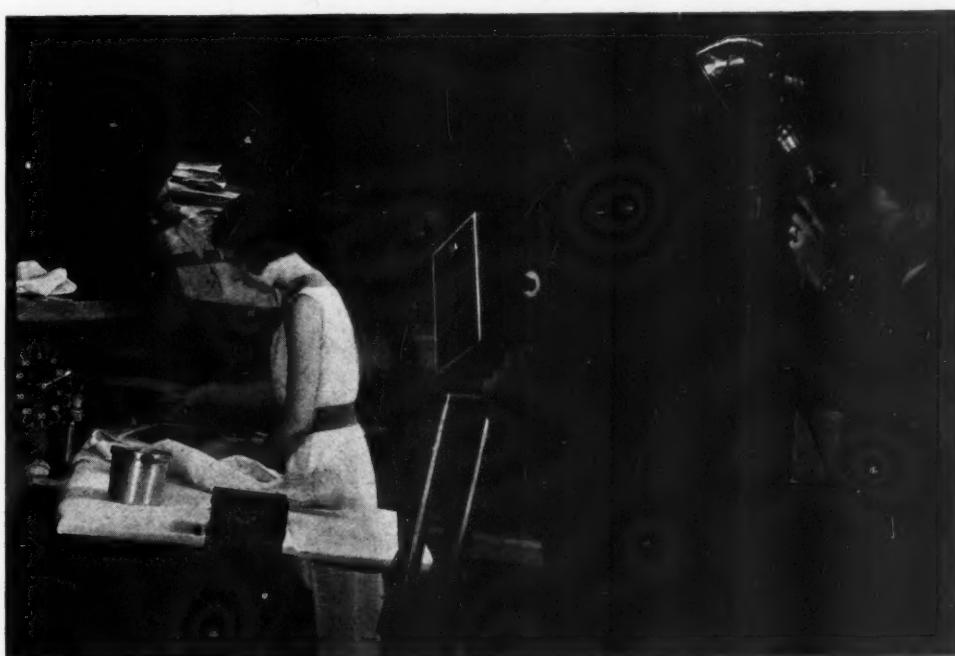
Making time and motion studies with motion pictures at the Institute of Laundering to encourage the economy of motion.

This is the first of two articles on increasing production efficiency in the laundry

The ideal laundry would naturally be laid out in such a way that all flow lines would be direct, and each operation sending the work through the plant would follow in direct order. Also, the distance between operations would be as short as possible. In most plants it is difficult to realize this ideal, but the closer such a condition may be approximated, the smaller will be the loss due to unnecessary steps.

The institutional laundry is in many cases allotted whatever space may be available in the institution, regardless of location. In some cases it is given several separate rooms in the basement, an arrangement which necessitates a continual trucking of work.

The first and most important consideration in the proper layout of the equipment is the relationship of one department to another. In some plants there are many places where the main flow of



work will digress from the most direct line. Often it doubles back and forth several times. This condition may go entirely unnoticed by the management merely because no plant study has ever been made in terms of flow lines and routing of work. If the manager will make a point of looking for all such back-tracking, he may be surprised at what he discovers.

The second step in production analysis, after the departments are straightened out in the proper flow line, is that concerned with the proper flow in the individual departments, so that the secondary flow of work through each department will parallel in the same direction the main flow line. Then, after any faults in the layout of the plant have been uncovered, the management must take action. The degree of inefficiency, loss in time and motion and unnecessary labor caused by the existing conditions may readily be determined. It is then essential that all possible ways and means of rectifying the faults be determined.

One of the paramount considerations is the expense of moving machinery and making the necessary arrangements. Those that will be the least expensive and afford the greatest saving should be undertaken first. In many instances it will be found that the rearrangement of small, light equipment, tables or departmental units which can be easily removed, will give the maximum results.

Certainly another important factor is the maintenance of equipment in good mechanical working condition. When a machine is designed to operate at 100 pounds steam pressure, it is well to carry this pressure, or a pressure closely approaching it, in order to obtain highest efficiency. Machine efficiency is dependent upon keeping the machine hot, properly padded and mechanically in order.

The factors just discussed in connection with machine efficiency have much to do with production. However, in the laundry we must have operators to handle the machines. Naturally, we must have both operator and machine efficiency in order to have a well balanced laundry production unit. The problem of obtaining operator efficiency is probably the most difficult task of all in the attainment of increased production. At the same time it is by far the most important.

An operator cannot be efficient unless she is skilled in the particular operation that she is doing. The most effective way to increase the skill of the operator is by proper training in time and motion study. Training in the laundry industry has generally been left to the floor lady or a supervisor in the particular department in which the employee reports. Management often pays



Demonstrating correct procedure to an operator.

little attention to the important item of training the new employee, as well as further training old employees. Training is a continual process and offers the same opportunity for financial gains or losses as any other job, depending upon the efficiency with which it is carried out. When instructing the operator, it is not wise to do the operation as quickly as possible at the outset. A better method is the demonstration or development method by which the operation is first gone through step by step in the best instructional order, with the simplest, safest best known process. The operator should then be encouraged to try her own hand and to ask all questions that may occur to her. If an operator forms a habit of doing a particular operation in a faulty manner, it will be twice as hard for the management to correct this fault after the habit becomes fixed as it would have been to train the operator in the correct method at the beginning of the training period. In other words, do the job right at first and have it done for all time.

During the process of training the operator, the instructor should explain clearly the various reasons why the method is composed of the motions demonstrated, and point out carefully the time required by excess motions, showing how this will in turn influence the operator's pay roll check.

During the period of instruction, it should be impressed upon the operator that proper method rather than speed in production is the immediate aim. She should be encouraged to acquire speed through practice in sticking to habit. She must learn to produce a good quality product at a good production rate, thus enabling the management to produce an article at a fair cost and in turn pay the operator a fair hourly rate.

A Hospital Starts a Budget

That budgets are not the bogies they are sometimes thought is proved by Dr. Black and Dr. Whitecotton who here develop a budget for a small hospital, using as a basis its operating figures for the last three years

By B. W. BLACK, M.D. and
G. OTIS WHITECOTTON, M.D.

Medical Director and
Former Assistant Director,
Alameda County Institutions, Oakland, Calif.

ABUDGET is merely a detailed financial plan, a road map, if you please, covering anticipated income and necessary expenditures over a given period, and based on exhaustive studies of past experience during a like period. Its requirements are rigid, but it provides sufficient latitude to care for unforeseen contingencies which may arise. Each person in whom is vested the right to make purchases or to issue supplies must be ever cognizant of the current situation of the budget in order to stay within his allowance.

Let us here assume that the governing board of a ninety-bed hospital directs its administrator to embark on the budget plan of operation for the ensuing year.

The hospital is in Bellville, a thriving Middle Western town of 65,000 with an additional 15,000 population within a thirty-mile radius. It is the only institution offering private medical care in the locality. Owned and operated by the community, its control is vested in a board of five well qualified business and medical men, and an administrator who holds an M.D. degree. The four-story building cost slightly less than a half million dollars exclusive of its site. It is now three years old and of class A construction, so insurance rates are minimal. This amount was made up by subscription and a bond issue of \$100,000 paying 5 per cent interest, none of which has yet been retired.

The staff is of the so-called open type and the institution is accredited by the American College of Surgeons. The x-ray department and the clinico-pathologic laboratory are under the supervision of a part-time director with two full-time technicians for routine work. There is no training

school, all nursing being carried on by registered graduates, and the superintendent of nurses is also in charge of the housekeeping and dietetic departments. The office manager acts as assistant superintendent and purchasing agent, the issuance of all supplies with the exception of food being under his direction. All requisitions and purchase orders must pass over the desk of the administrator for his countersignature.

There are thirty-four private rooms at \$8 a day, twelve semiprivate two-bed rooms at \$6.50 a day, four four-bed wards at \$5 a day and two eight-bed wards at \$4.50 a day. The operating room or delivery room charge for private room patients is \$20 and for those occupying semi-private rooms or ward beds, \$15. Approximately half the admissions are surgical or obstetric patients with an average stay of two weeks. All laboratory and x-ray work is charged for at current rates, the laboratory director paying the technicians' salaries and for all materials, and receiving 70 per cent of the net profits. A charge is made for all drugs and for all dressings except those of a minor nature. During the three years of operation the hospital has shown an average occupancy of 85 per cent for all classes of service and the loss from unpaid accounts has been 3 per cent. There is a daily average of ten patients desiring full-time private nursing care and the nurses' food is paid for by the patient at the rate of \$1.50 a day for three meals.

As a first step in the setting-up of his budget, the administrator has prepared for him a detailed statement covering the total expenditures and income for the three years during which the hospital had been in operation. These figures are compiled and totaled on the basis of each month's

business, and expenditures broken down into four major divisions, (1) salaries, (2) supplies, (3) repairs and replacements, including laundry, (4) general expense, including insurance, taxes and interest on bonded indebtedness. The income figures are broken down into five divisions, (1) rooms, (2) surgery, (3) laboratory and x-ray, (4) pharmacy, (5) meals for private nurses.

The average monthly expenditures for the three years totaled \$17,711.90 with the divisional breakdown and percentage of each to the total as follows:

	Percent.
Salaries	\$ 7,870.00 44
Supplies	6,165.68 35
Repairs and replacements, including laundry	2,118.16 12
Other expense including taxes, insurance	1,558.06 9
	<hr/> \$17,711.90 100

An additional breakdown into departmental expenditures disclosed the following figures with percentage of each to the total:

	Percent.
Administration	\$1,257.06 7
Culinary	4,797.65 27
Housekeeping	3,126.44 18
Medical treatment	2,325.30 13
Nursing	3,202.50 18
Engineering and maintenance	1,071.21 6
General	1,931.74 11
	<hr/> \$17,711.90 100

The average monthly income figure was found to be \$18,766.39 and the divisional breakdown with percentage of each to the total was:

	Percent.
Rooms	\$14,545.96 78
Surgery, including dressings	1,474.40 8
Laboratory and x-ray	318.45 2
Pharmacy	1,985.02 10
Private nurses' meals	442.56 2
	<hr/> \$18,766.39 100

The above figures, with the exception of the income from the x-ray department and the laboratory, are based on gross earnings less 3 per cent for uncollected accounts. The laboratory and x-ray income is net as it is not divided between the laboratory and the hospital until actually collected.

With the statements as presented above in his hands, the administrator is in a position to prepare a budget for the coming year's operation. He, of course, has no assurance that conditions are to be the same as they have been in the past,

but he will know at all times whether or not the income is meeting budget requirements and, when it fails to do so, he is in a position to curtail costs wherever necessary. His heads of departments must be kept well informed as to how closely the actual expenditures are approaching those anticipated so they may be in a better position to make any necessary changes.

No mention has been made of capital outlay since there has been no necessity for purchasing additional equipment in the three years of operation. The administrator plans no purchases which might fall in this category during the coming year hence he is making no provision for such items in the budget. However, it will be noted that there is an average monthly surplus of \$1,054.49 and the amount which has accrued to date has been placed in a sinking fund which, together with the interest which has accumulated, is available for capital outlay expenditure or for the retirement of bonds as they mature.

Had the governing board been desirous of employing the budget system of control at the time the hospital was opened, the method of procedure for the preparation of the budget would have been identical with the foregoing except that all figures would of necessity have had to be on a hypothetical basis. Better still, they might have been based on the experience of other institutions of like size in a community comparable to Bellville. A budget founded on hypothetical figures is more to be preferred than no budget at all as the former will give a planned system of operation, a charted course which will be easy to follow. Experience will indicate wherein certain items will have to be modified to fit individual needs, but without a planned method of procedure, this experience cannot be utilized to its greatest advantage in meeting future problems.

Replacing Obsolescent Equipment

Hospitals have profited by following certain practices of industry. Many, however, have failed to adopt the one relating to the obsolescence of equipment. Industry does not hesitate to replace a machine if doing so increases production so as to affect net returns, even though the discarded machine was purchased but a short time before. During the last five years great improvements have been made in hospital equipment. The economic situation has delayed the marketing of some articles, but with the improvement in business the newer inventions are being launched. Although the old should not be discarded because of the color of the paint on the new, one should be compared with the other with these two thoughts in mind: better service to the patient and a reduction in the cost for the person paying the bills.—Ada Belle McCleery, Evanston Hospital, Evanston, Ill.

After the Hospital, What?

AFTER the hospital is ready to discharge the patient who has been seriously ill, where

should the patient go? Different communities in this country have been experimenting with various answers to this question. In contrast to this variety, in Great Britain the one generally accepted answer is "To the convalescent home." This is accepted as the most satisfactory answer for patients coming from comfortable homes as well as those from overcrowded or poor homes. All patients needing after care of any kind, whether it is rest and building up or any one of a wide range of minor treatments, are considered suitable for convalescent home care, and, what is even more startling, such care is generally available.

In a recent study of institutional convalescent care in England, Wales and Scotland 431 convalescent homes were found.¹ The number of beds reported by these homes was 23,079. These figures look fairly large when compared with the 179 homes in the United States, containing 8,747 beds. This means that in Great Britain there are 53.6 beds per hundred thousand of population whereas in the United States there are 7.1. American health authorities have estimated that the modern American city needs a minimum of 60 convalescent beds per hundred thousand of population. The British have come fairly near this ratio but they say that they need still more convalescent beds for patients requiring good medical supervision and minor treatments during their recovery period.

British Homes Vary Widely in Size

The 431 convalescent institutions in Great Britain varied greatly in size, the smallest having 4 beds and the largest 1,312. About 32 per cent fell into the under 25-bed class, whereas 17 per cent contained over 100 beds. The general average size for the 431 houses was 61.4 beds which is fairly near the optimum size recommended by Dr. Lewinski Corwin, New York City. This American authority suggests 50 to 60 beds or multiples of such units as the most desirable.

One of the startling facts about convalescent

By ELIZABETH G. GARDINER
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homes in Great Britain is the amount of consideration given to men, who are so often said not to need much after

care. Men are admitted to three different kinds of institutions: those for men and boys, those for men and women and those for men, women and children. The exact number of beds assigned to each age and sex group was not reported but 11 per cent of the homes containing 14 per cent of the total 23,079 beds were open only to men and boys. The major emphasis however has been placed upon the care of children. About 24 per cent of the homes containing over 24 per cent of the beds are devoted exclusively to children, as are many beds in homes for adults.

Special Facilities Available for Rheumatics

The great variety of treatment facilities offered by the 431 convalescent homes was one of the outstanding features of the British system. Many homes are admitting all kinds of patients; some admit all kinds of patients but set aside separate wards or buildings for the care of one particular kind of patient and still others admit only one particular group. Orthopedic patients and children with rheumatic infection of the heart are probably the two largest groups for whom special provision has been made. Since studies of time lost from work by patients receiving benefits under the National Health Insurance Acts have shown the importance of arthritis, special facilities for the care of rheumatic adults have grown. In spite of these developments, 86 per cent of all the homes are still admitting patients suffering from a variety of ailments.

The numerous bodies which run convalescent homes in Great Britain may be divided under three general headings: private philanthropy, mutual assistance and local government units such as cities. The majority of homes are run by various forms of private philanthropy which experimented with this type of care long before the other organizations became interested. Friendly societies, trade unions and other mutual assistance groups have added insurance for convalescence to their other benefits since the Foresters opened their first convalescent home in 1887. In point of time the latest development is

¹Gardiner, Elizabeth G.: Convalescent Care in Great Britain, a study of 431 institutions in 1930, Social Service Monograph, University of Chicago Press, 1936.

the convalescent institution owned and run by a local government unit such as the city of Birmingham or the London County Council. During the period of depression the number of homes and beds has continued to grow.

The development of convalescent institutions in Great Britain is not yet complete. Those who are most familiar with the workings of the system point out the need for more beds where a wide range of minor treatments such as ear irrigations or dressings are available. Although diabetes is a growing problem in Great Britain, the patient with this condition is not accepted by most homes and frequently could not be adequately fed if admitted. The adolescent boy is also excluded from practically all institutions because he is difficult to manage. Physiotherapy is highly developed in Great Britain but other forms of auxiliary treatment are either absent or just beginning, for instance, such recently devised forms of treatment as dietotherapy, occupational and recreational therapy and mental hygiene.

With these exceptions the system of convalescent homes seems fairly complete and the standard of care offered is apparently good. Although there is no one law authorizing the licensing of convalescent homes as such, several laws have contributed to the development of a generally accepted minimum standard, and certain other laws have encouraged development of a high quality care for special groups of patients. Both types of laws have given the government the power to visit and license a fair proportion of the total number of homes. These legal provisions are a sign of the strength of modern preventive medicine in Great Britain.

No Uniform Accounting System

Maintaining 431 convalescent homes containing 23,079 beds obviously involves the expenditure of a considerable sum of money. Unfortunately there is no uniform accounting system and the reporting of expenditures was incomplete, but a conservative estimate puts the expenditures at £1,350,000 which at the rate of exchange used during a large part of the year 1930 exceeds \$6,500,000. This sounds like a large sum of money, especially when considered in terms of the value of money in England. If considered from the point of view of expending any such sum for convalescent care in this country it shrinks into relative insignificance when it is seen as the equivalent of the value of the fireworks produced in the United States in the year 1929.¹

This considerable sum of money comes from a

¹Statistical Abstracts of the United States, p. 827, Washington, D. C., U. S. Government Printing Office, 1931.

large number of sources. The earliest sources were (1) bequests under wills; (2) yearly subscriptions from benevolent individuals; (3) voluntary gifts, and (4) fees paid by patients. Apparently there is no relationship between the fee charge and the quality of care offered or the per capita cost. The amount of the fee is regulated by the income of the patient.

At a somewhat later time central funds under private trustees began making grants for convalescent care. At about the same period fraternal orders, trade unions and other mutual assistance groups assessed members for this purpose, and continue to do so. Money from the national treasury has been invested in this kind of care through grants in aid to privately managed homes and also to those run by local government units. Local government units have expended money from the local taxes. Money from the National Health Insurance Fund has also paid for convalescent care as an additional benefit offered by the stronger approved societies. Much voluntary insurance against convalescent care costs is continued by insured persons because the National Health Insurance Acts do not make this form of protection compulsory.

Three Outstanding Points of System

Americans who are interested in community-wide planning for the care of the sick may find that the experience of Great Britain in providing institutional convalescent care points the way for us. The outstanding points of the system are (1) the great variety of provision for men, women and children of many different social groups suffering from a wide range of conditions; (2) a flexible scale of fees graded to permit the patient to carry whatever part of the cost of his care he can conveniently pay either in advance through insurance premiums or at the time of recovery from illness; (3) public provision for free care available for the most numerous group of patients, those who cannot be expected to pay for their own care because they earn so little.

Because Great Britain experimented with institutional convalescent care over more than 200 years, certain phases of its development there might be omitted here. Since private philanthropy has already demonstrated the value of institutional convalescence, could this country move directly into the modern phase of public provision on an adequate scale, adequate both in number of beds and in quality and variety of care offered? In 1923 Dr. John Bryant said "The community does not appreciate that convalescence is in effect the one remaining gap left in the public health cycle." Will this still be true in 1943?

What Is Due the Accident Patient

By SHEPPARD REMINGTON, M.D.

Member, Regional Fracture Committee, A. C. S., Chicago

WITH the increasing number of automobile accidents, new responsibilities are placed on the hospitals. The majority of accidents occur on streets and in factories. First aid should be rendered on the spot.

Because in Chicago and some other communities ambulance service is inadequate, passing motorists frequently transport accident victims to the hospital. These misguided Good Samaritans often seriously harm the victims by doubling and bundling them up in an effort to get them through the narrow doors of a car. The resultant complications put the patient in an unnecessarily bad condition when he reaches the hospital emergency room. Fresh trauma is productive of more pain and shock. It is far better for the injured person to be left at the scene of the accident until he can be given first aid treatment by the ambulance doctor.

Needless handling by unskilled persons in unsuitable surroundings may be dangerous to life. Overriding of the fragments of broken bones is caused by the combination of external violence and the action of the muscles that are attached to the fragments. If the displacement is considerable and the broken ends angular, a great deal of

damage to the soft tissues, namely, nerves, blood vessels, muscles, may result from injudicious handling. A secondary compounding with the bone ends going through the skin often results from carelessness in manipulation and transportation, especially in fractures of the leg. Thus a simple break becomes serious.

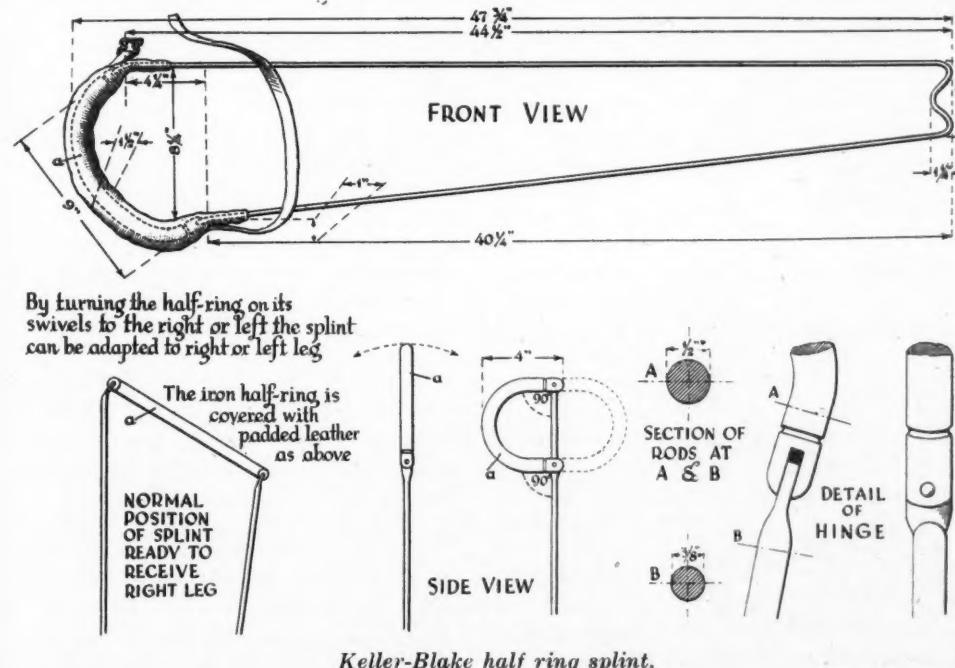
The Chicago regional fracture committee of the American College of Surgeons believes that all ambulances, whether privately owned or provided by the hospitals or the city government, should be equipped with simple adjustable splints. These splints are modifications of those that were used by the Allies. The entire outfit is encased in a bag similar to a golf bag, only flatter. This can be suspended on the inner wall of the ambulance or placed under the seat.

For immediate care of the limbs, splints afford the only feasible means of fixation. These splints are of simple design, well constructed to meet all requirements for fractures of the arms or legs. The simplicity of the mechanical principle ensures quick familiarity with their uses and efficient application.

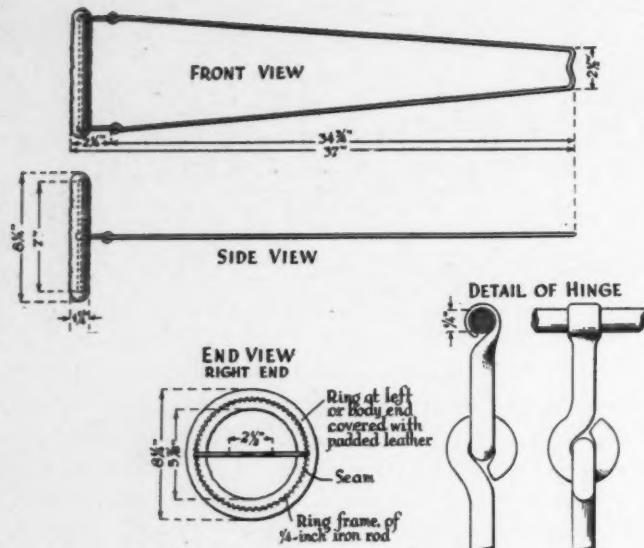
It is further recommended that the police and firemen be instructed in their application just as the privates performed in the field.

During the war, the application of the Thomas splint reduced fatalities from fractures of the femur or thigh bone from 50 per cent to 15 per cent and since then it has become the standardized splint. If professional aid is at hand at the time the ambulance arrives with the splint, everything would be in readiness to give temporary protection to fractures.

In a recent survey in Chicago, it was found that the only ambulances

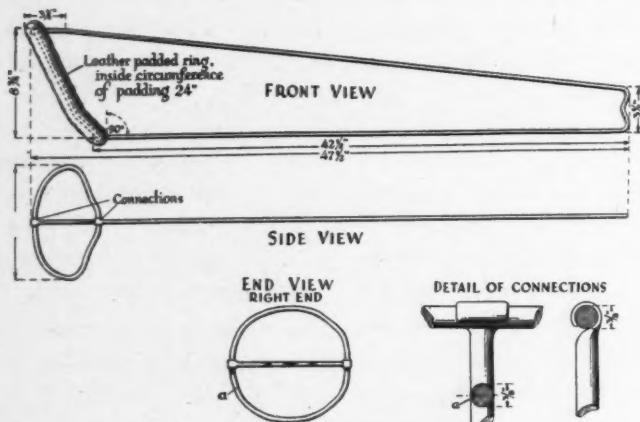


Keller-Blake half ring splint.



Murray-Jones arm splint.

available for general accident calls were about five provided by the fire department. The health department has about the same number but these are for contagious diseases only. The Municipal Tuberculosis Sanitarium has a small service but it is limited to tuberculous cases. Police patrol wagons bring fifty patients a day to the public emergency hospital, which has no ambulance. These patrol wagons are not equipped as ambulances. On one trip the police may have a load of criminals or drunks, on the next, an expectant mother or a contagious disease case. No hospital



Thomas traction leg splint.

in the city has an ambulance of its own. Private concerns place the name of the hospital to which the patient is being transported on the side of the ambulance. Such inadequate facilities are appalling in a city where millions reside.

An adequate number of ambulances, properly staffed and available in all parts of the city would save thousands of dollars to the city, the county, the insurance companies and the patients. This is true because neglect in transit, with resulting complications, is very expensive to all concerned.

In this and other similarly situated communities, the hospitals should take leadership in bringing to the attention of city, county and state officials, motor clubs, insurance companies and the general public the need for an adequate ambulance service. Hospitals should be prepared to provide trained medical personnel for the ambulances or to give a basic minimum of training to those who are to be placed on ambulance service. Long ambulance rides should be unnecessary, the patient being taken to the nearest hospital which is equipped to give him prompt, efficient care. If he cannot pay and if there is no one else responsible for the cost of his care, the city or county should meet all or the major part of the cost.

Hospitals should also join with other agencies in educating the public regarding the hazards of unskillful moving of patients. The true Good Samaritan will call an ambulance, make the patient as comfortable as possible and then wait till the ambulance arrives.

Recording the Painting of Walls

There are, perhaps, as many grades of paint on the market as types of salesmen selling it. Since paint is used to decorate and preserve the walls of institutions, it constitutes an important item in our yearly expenditure and it behooves us to check carefully its wearing qualities and to purchase wisely. Some depend entirely upon the reputation of the firm selling it. However, we know that a good paint properly applied should withstand a number of washings. In a hospital, where many rooms are painted at different intervals on account of patient occupancy or lack of occupancy or unusual exposures, it is difficult to maintain a record of the exact date of the painting of each room, the number of washings the paint has been subjected to before it is repainted, the grade of the paint used and the quality of the washing materials.

A good method of obtaining such information on the painting and washing of walls is to have a file containing a card for every room, and corridor. The housekeeper records in a book daily the walls that are washed, with the name of the cleaning material used for that purpose; the painter records in a book the date of the painting of each room or corridor, the grade of paint and the name of the firm furnishing it. At the end of the month each sends his or her report to the administrative office, where are recorded on the room card which is divided into two spaces (one for painting and one for washing) the date of painting, grade of paint, firm from which it was purchased, dates of washing, washing material used and firm from which it was purchased.

This provides a check on the wearing quality of the paint, the material used and the firm furnishing it, shows whether some rooms are painted too often and others not often enough, the regularity of wall washing, quality of washing materials and the speed and efficiency of both the painter and the wall washer. It also gives those purchasing more authentic information concerning materials used.—*E. Muriel Anscombe, F.A.C.H.A., Jewish Hospital, St. Louis.*

Hospital Care for the Needy in New York State

By RUTH TAYLOR

Commissioner of Public Welfare, Westchester County, New York

RAELY do we find in social legislation provisions as adequate for their purposes as are New York State's legal provisions for medical and hospital care for the indigent sick.

When the new public welfare law was being drafted in 1929 to replace the century-old poor law, social and health workers and others interested in human welfare struggled to secure in the new act correction of the many difficulties that had previously stood in their way in providing for the sick. As a result, the new statute simply and without confusing verbiage holds the cities and counties of the state, through their public welfare officers, responsible for providing medical care not only for all persons already wards of the public but also for "persons otherwise able to maintain themselves who are unable to secure necessary medical care."

Thus was settled conclusively the previously argued question as to whether or not a public welfare officer had any right to furnish medical care at public expense to a person not already receiving some other form of public relief. The act further provides that medical care may be given persons "in dispensaries, hospitals, the person's home or other suitable place," a statement as broad and all-inclusive as the framers of the act could devise.

Not Hampered by Red Tape

Specifically, in regard to hospital care, the act states that "a public welfare district shall provide needed care for sick and disabled persons in a hospital maintained by the municipality or in any other hospital visited, inspected and supervised by the state board of charities. It may contract with such other hospitals to pay such sums for the care of sick persons as may be agreed upon." Thus, no red tape surrounds the use by a public official either of a public hospital or a voluntary institution in securing care for persons in need,

Marked by simplicity both in its terms and in its administration the public welfare law, passed in New York to replace a hundred year old poor law, is a splendid example of socially advanced legislation

and he is free to make with a voluntary hospital any form of contract for payment that may seem wise to both.

As a matter of fact, in New York State, outside of New York City, there are relatively few public hospitals except county tuberculosis hospitals, and the public welfare officers therefore use numerous voluntary hospitals for their charges, paying those hospitals a widely differing set of both per capita daily charges and also of special fees. The discretion of the public welfare officer and the rates requested by the voluntary hospital are the determining factors.

To make doubly certain that persons in need of hospital care shall not be unprovided for, the public welfare law provides that while, as far as practicable, no patient whose care is to be a charge on the public shall be admitted to a hospital without the prior approval of the public welfare officer responsible for his support, nevertheless, in case of emergency, when a patient is admitted without prior authorization, the hospital may within forty-eight hours of admission report the case to the proper official, stating in addition to other facts that immediate hospitalization had been necessary. The law then fixes responsibility upon the official for investigating the case and considering acceptance of responsibility for the patient's support.

The counties of New York State are subdivided into numerous towns or townships, many of them in rural areas having a very small population and, hence, often having public welfare officers untrained and not specially equipped for their tasks. To relieve the difficulty of having a large number

of such officials dealing with the hospitalization of the sick, the public welfare act provides that outside of the cities, the hospitalization of persons living in the various towns of the state shall be vested in the county commissioners of public welfare. These officials, having offices of more prominence in their districts and serving wider areas, are believed to be better equipped to study, understand and meet the needs of sick persons.

No Interference With State Sanitary Code

The public welfare act is careful not to interfere with the health officers' control of communicable disease as expressed in the state sanitary code or other laws. It also makes special provision for patients suffering from tuberculosis and is specific as to the duties and obligations of public welfare officials in regard to such cases.

On the whole, it is hard to conceive of any problem of medical or hospitalization need that cannot easily be handled by an intelligent public welfare official under the present statute if only funds are provided for the purpose. Naturally, many problems remain unsolved, especially those dealing with questions as to the relative values of the type of care given by two different hospitals in a district, the question of the hospital that retains patients at public expense longer than may be necessary, the hospital that admits as emergency cases those not in need of immediate hospital care and various other problems perplexing to lay officials.

A lay official is often, in many aspects of his work, handicapped in judging the worth of another clearly defined profession. Likewise there exists in some localities the public welfare officer who does not appreciate the value of hospitalization and balks at incurring for his district this type of expense. However, it is safe to say that, had not the relief load, brought down upon public welfare offices throughout the state because of the depression, swamped those offices to such an extent that their work has had to be carried on almost on an emergency basis from month to month, marked progress would have been made before this by public welfare officials in furthering cooperative movements with medical societies and hospital boards, looking towards the establishment of competent advisers to the public welfare officers in the medical aspects of their work. The state medical society and the state department of health have shown themselves willing to be of service to public welfare officers in this regard and in many instances there already exist affiliations between public welfare officials in a district and their county medical society. Some public welfare officers are already using the pre-

rogative afforded them by the law and sending few, if any, patients to hospitals that approved rating bodies do not rank in the highest class.

Public welfare officials naturally have been and still are under the greatest pressure to keep down expenses during this period of pyramiding relief costs. In a choice between public and private hospitals, the public welfare official representing the taxpaying group naturally is obliged to choose the public hospital if that hospital is able to give adequate service at a lower rate than the private hospital. However, in many instances the tables are reversed, since private hospitals, because of their endowments or voluntary contributions, are able to offer ward rates at a lower cost than the public hospital. On the whole, there seems no disposition whatever on the part of public welfare officials not to appreciate fully the services of the voluntary hospitals on which, throughout most of the state, they depend for care of their wards.

One obstacle, in this as in all other fields of need, stands between the public welfare officer and the accomplishment of his task — the necessity for adequate appropriations with which to pay hospital bills. Education of the general public — the voters and the taxpayers — is the solution to this question and in this field the medical profession can be of the greatest service. The public welfare official is able to pay for the hospitalization of persons only insofar as funds are provided for the purpose. These funds will be forthcoming in each locality when the general public is educated to a point at which it is willing to pay for this form of needed care for persons unable to provide for themselves. The present modern public welfare act of the State of New York is an almost perfect instrument for meeting the needs of sick people and public welfare officers are on the whole willing and eager to live up to their opportunities under the act. The desired results will be accomplished in each district to the degree to which popular education in this field has advanced.

Amalgamation of Hospitals

Coordinated effort leads to the attainment of a higher degree of efficiency; organized team work results in improved care of the sick; duplication of accommodation, facilities, services and staff is avoided; overhead charges and expenses of administration are reduced; scientific investigation is stimulated, and competition for support is lessened. These are some of the arguments in favor of amalgamation of hospitals as set forth in a paper by Capt. J. E. Stone, secretary of the Birmingham Hospital, Birmingham, England, for the annual conference of the Incorporated Association of Hospital Officers, London.

"Tomorrow Is Another Day"

*A study in the utilization
and the conservation of time*

WHILE much has been written concern-

ing the necessity for economy in hospital financial affairs, little has been said in regard to the conservation of time. Inefficiency in organization, carelessness in the assignment of duties and old-fashioned equipment are capable of bringing about losses that are perhaps even greater than those sustained in money through other faulty administrative practices.

There is a saying common in tropical climes which being translated means "tomorrow." When a request is made the indolent native is likely to reply that he will fulfill it on the next day. Too long the motto of many hospitals has been "tomorrow." It has brought about a philosophy of postponement.

If 200 Hours Are Wasted

The total service hours available for the care of patients are easily computed by multiplying the number of the persons on duty by the length of their tour of service. While more employees are at work in the day than during the night still an average may be secured which may serve as a basic figure. Now if for any reason in a hospital with 200 members in its personnel, an hour a day is squandered by each because of poor organization, improper assignments, lack of mechanical aids, the loss thereby can be easily ascertained.

If, for example, the total expense of conducting such a hospital from the standpoint of salaries is \$500 a day, it can easily be computed that the services of each personnel member cost, on the average, two and one-half dollars. To reduce the problem, therefore, to its simplest form it can be easily seen that from twenty-five to fifty dollars a day could be lost through an inefficient and improper personnel set-up.

It may be contended that this sum represents not money lost but instead service not received. But in either case if a hospital can be conducted with a personnel which loafers, on the average, 200 hours a day it can by the same token be effi-

By JOSEPH C. DOANE, M.D.

ciently managed with ten or fifteen less employees who work effectively

during every hour of their tour of duty. A penny saved is a penny earned.

Other elements enter into the problem. If a highly trained and adequately paid employee performs work which might be assigned to one less skilled, loss ensues. If, on the other hand, an unskilled employee is permitted to handle expensive apparatus, to contact the public clumsily or to undertake duties for which he is not trained, similar loss follows. Hospital time, therefore, can be easily converted into a dollars and cents profit or loss.

The selection and training of employees is of great importance. Repeatedly has a suit against a hospital arising from some mistake of a worker been decided in its favor because it was proved that due care was exercised in the selection of the worker concerned.

It is to be regretted that some executives seem to believe there is something disgraceful about a hospital that does not show a deficit. Moreover, since the institution is not conducted for profit, it is the belief of some that as careful scrutiny of expenditures and receipts is not required as is the case in the business world. It should be emphasized therefore that skilled administration requires conservation in the time of employees, patients, visitors, sales people and all others who are brought in contact with its operation.

Take the Superintendent

The most highly paid officer in the hospital is usually its administrator. Wasting his time is from an individual standpoint the most likely to bring about waste of funds. Frequently the activities of the superintendent himself will stand scrutiny. He who spends his day at his desk is as likely to be inefficient as one who is continually absent therefrom. Visitors, sales people and others who desire a conference with the superintendent should be assigned a definite hour. Herein lies the skill of the executive's secretary, who is sometimes more businesslike, efficient and time

saving than her superior officer. It is she who arranges the superintendent's day, keeps for him his engagements, dismisses casual visitors without an interview if she is able to satisfy their requests and in fine often acts in his stead when minor matters present themselves. There is a real art in dismissing visitors promptly without offense when they have concluded their business. Many hours can be wasted by permitting casual conversations to continue beyond the point of necessity. A tactful secretary is often most helpful to the superintendent in this respect.

The superintendent not infrequently wastes his own time. He devotes hours to the performance of petty duties. He fails to delegate duties to those capable of performing them. There are those who perform much institutional bookkeeping because they are apparently not capable of selecting responsible assistants. There are those who supervise the cleaning of sidewalks, petty repairs, the counting of each day's receipts and the issuance of orders of such small consequence that they should never have come to the superintendent's desk at all. There are those who personally make the daily bank deposit, go to market, interview each person who desires to enter into business deals with the hospital, no matter how small.

What of the Chief Nurse?

Such a superintendent is bound to waste his time and he becomes a liability rather than an asset. By these acts he discourages others from assuming responsibility and develops in them a picayune attitude which results in the evasion of duties that have been assumed by the executive. These remarks, of course, do not apply to the executive of a small hospital where time permits and necessity dictates that this officer become an efficient Jack-of-all-trades and really a master of many.

In the office of the chief nurse, time frequently is considered inexpensive and limitless. The directress of nurses spends her time performing duties that should be assigned to her assistants. To be sure, the charting of the day's work, the laying out of time schedules are vital. Moreover, familiarity with the problems and the performance of each department under her nursing care falls within the scope of her activity. She should thoroughly acquaint herself with the possibilities of saving the time of each member of her department.

No hospital is innocent of the charge of wastefulness if it profiteers upon the time of graduate and pupil nurses. The former are often developed into glorified bookkeepers continually confronted with a multitude of forms, reports and inventory

takings. They become supervisors who are responsible for paper work and who because of the magnitude of this task rarely come into intimate contact with patients. They are incapable, because of the lack of time, of studying the functioning of the wards under their direction. The carrying of trays the full length of the ward, oft repeated trips to storerooms for supplies, inefficiency in handling bedpan traffic, time wasted in bath giving, all result in the loss of many valuable nursing hours.

An Educational Affront

Pupil nurses are notoriously likely to be transformed into messenger girls. They fetch and carry. Their days are spent in making trips to the office with charts, to the x-ray room with patients, to the solarium with meal trays. They are sent to the admission office to bring back patients. When they are thus engaged they cannot be at the patient's bedside. A pupil nurse should be looked upon as one who is acquiring an increasing skill in handling the sick. A visit to hospital utility rooms will too often find her scrubbing bedpans and other utensils, washing dishes, polishing sterilizers and even in some instances mopping floors. Apart from the educational affront represented by these acts, the loss in money to the hospital and in nursing to the patient is serious.

In such a hospital the directress of nurses is seldom found inspecting the wards and rooms. Her rounds are likely to be of the military type, far from effective from the standpoint of improving morale and heightening efficiency. It is wasteful to require her to be responsible for the physical up-keep of the hospital, yet when an institution possesses a stay-in-the-office type of executive physical inspections often fall upon the directress of nurses.

It is curious that many administrators and directresses of nurses are inclined to look upon their duties as being largely of a daylight variety. They know little of the functioning of their institutions during the night. They rarely make rounds then and the efficiency and time saving activities of the night personnel are likely to be at a lower ebb than those present during the day. One-half hour of bedside nursing added to the work of each pupil nurse in an institution with a school of 150 can be seen to be equivalent to seven or eight days of nursing gained, and by the same token the loss of this number of minutes each day is an actual loss of an equal number of days of patient care.

The two persons highest in authority in the hospital have been selected as examples of the



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possibility of wasting time. Every department of the hospital is capable of thus squandering the institution's money. In the laboratory each day may seem to be similar to every other day. What remains undone at 5 p.m. may be considered as proper if it is performed the next day at 9 a.m. "Tomorrow" is often the motto adopted.

It may be said, however, that frequently the inexcusable waste of time on the part of hospital workers cannot be entirely laid at their door. There are many mechanical time savers which may be employed. In the absence of such and in the presence of an improperly laid out institution with long corridors, and unsuitably placed utility rooms, diet kitchens and linen rooms, waste of time is almost inevitable.

Hospital architects and consultants frequently plan spacious quarters for the care of patients without remembering that many unnecessary miles must be traversed by those caring for the sick if service distances are not deliberately shortened and the patient's bed thus brought into proximity to the necessities needed for his care.

In the modern institution records should be transferred by a carrier system. Call systems should make it possible for private patients to deliver* requests for nourishments, ice water or needed assistance to the nurses' office, thus saving one trip to each room. In the course of a day's work, such an installation is capable of saving the hospital much time and money.

Flowers, mail and other commodities are often dispatched from a central point to hospital floors, thus saving trips by messengers or nurses. The old system of requiring many runners to perform this type of service has been efficiently supplanted by carrier or elevator system.

The same thing may be said in regard to the technique employed in the discharge of patients, frequently two or three trips being required on the part of the nurse to secure the proper discharge approval of the chart both from the physician's standpoint and that of the payment of the patient's bill. The need for saving the patient's time is often overlooked. It is thought that the patient's time is unlimited and that it is therefore incumbent upon him never to complain when long hours of waiting are required. Dispensary benches could tell eloquent tales of delay in the giving of medical attention. Perhaps the term "patient" can be considered as having a double meaning, for he rarely complains when long waits are imposed upon him.

Patients applying for care in the accident ward do not always receive immediate service. Those undergoing the often painful process of admission are required to spend hours in bringing this about. Moreover, the attention given to ward patients is frequently in strong contrast to that afforded private patients.

Once admission has been secured, the motto in regard to the prompt institution of studies, the making of a diagnosis and the application of treatment is frequently "tomorrow." A forgotten x-ray examination may add several days to a hospital stay. The failure to prepare the patient properly for a laboratory study adds one or more ward days. All such avoidable wastes are doubly reprehensible because too often it is the practice to allow ward treatment to lag, and it is here that are found the greatest number of patients. Prompt study, prompt diagnosis, prompt surgery save time and money for the hospital as well as for the patient.

Your Parking Place

In these days of increased motor traffic and cramped grounds, this question of parking space is giving hospital administrators some thought. One Sisters' hospital in a downtown theater area maintains a space for its medical staff and must maintain a day and evening guard to keep shoppers and theater-goers from filling and blocking the area with locked cars.

Some hospitals have redesigned their grounds to give adequate space while others have parking rights on nearby vacant property. The noise of "warming up" and the exhaust fumes are annoying to patients, and the problem is to keep the area sufficiently apart from the hospital proper without making it too inconvenient for the car owners. The noise factor is particularly noticeable where the approach is up a steep grade.

The parking area should be carefully considered in any new construction or in any landscaping program. Not

only should it be removed as much as possible from the buildings housing patients, but signs should clearly indicate one-way traffic or angle parking, in order to minimize confusion.

The surfacing should receive some thought; with rambling grounds and a limited bank credit, gravel may be preferred to pavement, but it must be remembered that the "crunching" of gravel is disturbing to many patients. Flying dust is also a factor with unpaved roadways and, while oil will control it, the floors often show damage from such treatment.

In Northern areas where the winters are severe, some hospitals provide electrically connected "hitching posts" for the doctors' cars. A cord from an engine heater can be plugged into a receptacle on the post. One large hospital has a closed garage for about fourteen cars which is kept well heated by hot air drawn from over the boilers with no maintenance cost except for a fan.—*G. Harvey Agnew, M.D., Department of Hospital Service, Canadian Medical Association.*

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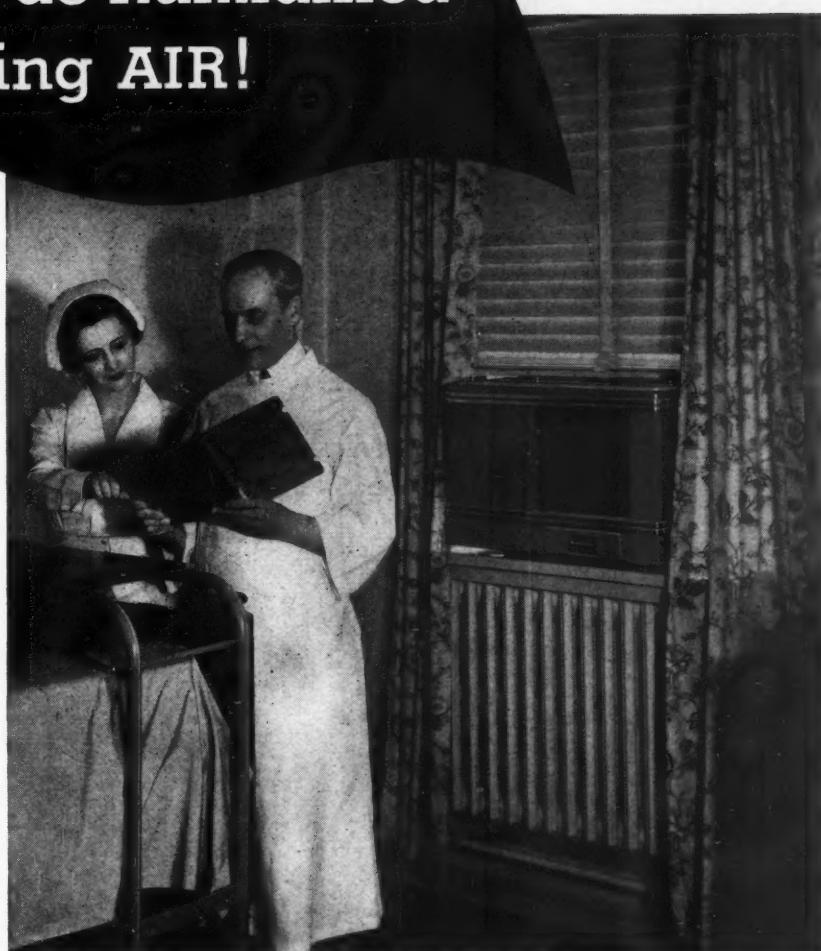
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"Calling Doctor Smith"—By Telephone and Amplifier

By Sidney G. Davidson

Superintendent, Grace Hospital, New Haven, Conn.

FROM an engineering standpoint, the paging system recently installed at Grace Hospital, New Haven, Conn., is comparatively simple and it can be operated solely by the telephone operator at the hospital switchboard.

Thirteen loudspeakers are located at strategic points in the hospital corridors. A small shelf near the PBX operator's switchboard holds the necessary amplifier, an arrangement with vacuum tubes similar to those in an ordinary radio set. This occupies a space about 4 feet long, 9 inches high and 9 inches wide, and it may be placed elsewhere if space near the switchboard is limited. Current for its operation is supplied from the lighting circuit, and costs about the same as a common 100-watt light bulb.



Mr. Davidson is seen making an announcement at his desk telephone.

To page a doctor, the operator throws the switch, waits a second or two for the vacuum tubes to heat, then makes her announcement. The individual paged answers from the nearest telephone.

The announcement is broadcast over an improved transmitter which is also used by the operator in handling telephone calls. Better transmission quality may be obtained by using a separate transmitting circuit, but this would involve shifting from one transmitter to the other. The difference in quality may not be considered worth the time wasted in swinging the transmitter into position.

Announcements may also be made from any telephone connected with the hospital switchboard and equipped with the proper type of transmitter. The operator in this case completes the necessary connections.

At installation, the volume of the loudspeakers is adjusted at the amplifier by a simple turn of a rheostat knob similar to the volume control on a radio set. Individual loudspeakers may then be separately adjusted according to the conditions at their locations. Each loudspeaker has a control switch affording several gradations of volume. Thus, if open windows bring in street noises at one location, the speaker volume can be increased to overcome this noise. Any speaker may



Operator paging through same transmitter as is used for telephone calls.



Each loudspeaker has a control switch affording several gradations of volume.

also be entirely cut out of the circuit by shutting it off at this switch.

Technical problems of acoustics, volume and number of loudspeakers required were studied by competent engineers. It was found that mounting the loudspeakers at an angle with the wall gave better results in carrying the operator's voice through two intersecting corridors. There were also several other acoustical problems to be overcome, particularly, reverberations from smooth walls, which were compensated for by exercising judgment in placing the loudspeakers.

Compared with the previous system of signal lights, the loudspeaker arrangement has two outstanding advantages—flexibility and speed. Previously, the number of doctors who could be paged was limited by the number of prearranged code signals. There is no limit to the number who may be reached through the loudspeaker system, since each is called by name. More than 150 different people are paged daily under the new system. This would have required an elaborate system of code calls under the old signal light system.

The audible system also brings a faster response than the former arrangement, where lights often went unnoticed. As contrasted with a single stroke bell system, there is a psychologic advantage in that a person responds more quickly when he hears his name spoken than he does in the case of a code signal. Under the old system, to reach a doctor who had no code signal the operator had to call ward after ward, asking for the person sought; now, she inquires for him in thirteen locations at once with one simple announcement.

This time saving was reflected in studies made before and after the installation, showing a 50 per cent reduction in the operating load. This saving obviated the necessity of employing an additional operator, and more than justified the cost of the installation.

Equipment Is Leased

Leasing this equipment has distinct advantages over purchasing it outright. First, of course, the need for a large capital expense is eliminated. Equally important is the freedom from maintenance worries. The equipment is serviced by trained employees of the company, which assumes all responsibility for keeping the equipment in good working order. Finally, separate equipment, independent of the private branch exchange service, does not permit paging from different branch exchange stations, using the attendant's regular telephone transmitter for paging.

The hospital paid \$5 apiece for the installation of thirteen annunciators and \$10 for the installation of the keyboard and the amplifier. It pays \$1 a month rental for each amplifier.

VITAMINS IN CANNED FOODS

I. VITAMIN C

The history of scurvy is as old as the history of exploration and conquest. Its ravages among early explorers and invaders are recorded in the oldest pages of history, due principally to the fact that during extended sea voyages or treks by land, dependence had necessarily been placed almost entirely on foods preserved by the crude methods of the day.

Scurvy was the first vitamin deficiency disease to be controlled by dietary management. In 1757, Lind recognized the fact that some substance in foods exerted a specific protective action against scurvy (1). As early as 1804, the daily lime juice ration became compulsory in the British Navy (2).

However, it remained for modern biochemical science to establish the chemical identity of this antiscorbutic factor. Vitamin C is now known to be identical with cevitative acid (levo-ascorbic acid) and is as yet the only vitamin to be synthesized in the laboratory (3).

There would appear to be no valid reason why scurvy should ever constitute a serious threat to the health of the average American

infant or adult. Development of refrigerated transportation for raw foods and improvements in modern methods of food preservation, specifically canning methods, make available to the consumer during the entire year a large variety of foods possessed of valuable vitamin C contents. In addition, the modern trend towards education of the layman, in regard to the vitamin C requirements of both the infant and the adult, should also assist in complete eradication of infantile and adult scurvy from America.

Many canned foods are to be valued as contributors of vitamin C. Nutritional research has indicated that canned products such as the citrus fruits or citrus fruit juices (4), the more common fruits (5), and vegetables or vegetable juices, are important sources of the antiscorbutic factor (6). Modern canning procedures afford a good degree of protection to this labile vitamin, with the result that the canned food can be relied upon to supply amounts of vitamin C to the diet consistent with the amounts of the vitamin originally contained in the raw food from which it was prepared.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) Vitamins: A Survey of Present Knowledge. Page 187 Medical Research Council, Special Report 167. 1932. His Majesty's Stationery Office, London.

(2) Vitamins in Theory and Practice. Page 86. L. J. Harris, 1935. Macmillan, New York.
(3) 1933 J. Chem. Soc. 136, 1419

(4) 1930 J. Home Econ. 22, 588.
(5) 1935 Amer. Jour. Pub. Health, 25, 1840.
(6) 1933 Ind. Eng. Chem. 25, 632.

This is the fourteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Committee on Foods of the American Medical Association.

Sharpening the Hollow Needle

By George G. Little, M.E.

Superintendent, Instrument Shop, The Mayo Clinic, Rochester, Minn.

THE hollow needle is indispensable in the practice of surgery, and the care necessary to keep it in proper condition for instant use is most important. Its tubular form presents an inner surface, difficult of access, which must be kept clean and free of clogging if the needle's usefulness is to be maintained and its point kept suitable for sharpening.

Because of the lack of experience and necessary knowledge of the majority of those who try to keep these needles in proper condition, corroding of the metal and clogging of the interior of the needles occur and cause them to become, sooner or later, unfit for further use. Needles which become even slightly corroded require more grinding to resharpen the point than is necessary if they are kept properly cleaned and dry when not in use. Experience gained in the cleaning and sharpening of many thousands of hollow needles teaches one that it is not a difficult task to keep

them looking like new throughout their usefulness. Few instruments are listed under so many designating terms, yet remain so nearly identical in form and require the same treatment for cleaning and sharpening. Not many instruments are used so continuously.

The point of the needle should be kept sharp and properly shaped; its outside should be kept smooth and clean, and its inside clean and free of obstruction.

To keep the inner surface of hollow needles free of all corrosion, it is necessary only to provide a means of forcing boiling water through them, as soon after they are used as possible. The sooner this is done, the better will be the result. The needle is fitted on to an all metal syringe. A handle is attached near the top, at a right angle to the barrel of the syringe, providing a suitable means of holding the needle in the boiling water while it is being thoroughly washed. After the water has been drawn through the needle several times and the needle has become as hot as the water, a light mineral oil is passed into and out of the needle. The needle then is ready to be laid away until needed again.

While the technique and facilities for sharpening remain constant, the uses to which the hollow needle is put require a variation in the shape and the angle of the point. Fig. 1 shows the type of point certain needles should have for a given purpose. The forming and sharpening require some experience and care in the use of proper sharpening tools. There is almost a special point for every use for which these needles are required, and while some of the angles seem rather blunt for practical application, they have proved best in cases in which a longer bevel is not suitable.

Forming the Point

The point is formed by grinding the needle on a circular oilstone of fine grit, and is finished by polishing on a felt wheel of approximately the same diameter. The felt should be coated with regular plater's rouge. The angle is formed by holding the needle at a predetermined position against the face of the wheel with the hand, with or without a rest. The eye is used to govern the position and angle.

A light oil or gasoline is used on the oilstone for the grinding operation, while it is merely necessary to rub a

coating of the rouge on the face of the felt wheel to prepare it for use in polishing the points. The two wheels are supported and power driven in the conventional manner, except that they revolve at only about 200 revolutions per minute, instead of the usual high speed of motor driven grinders.

The grinding operation usually causes a burr to form at the inner edge of the heel of the angle, because of the direction of travel of the surface of the wheel while it removes the required amount of metal necessary to form the point. The burr should be removed before the polishing is done by reaching in and removing the ex-

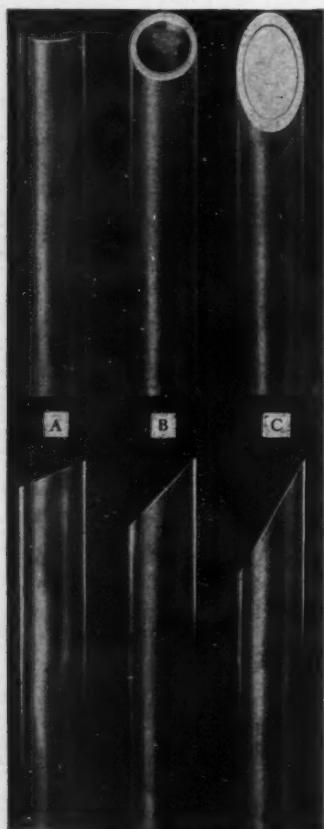


Fig. 1. Front and side views of three hollow needles: "a", caudal (blunt) needle with angle of 75°; "b", spinal (sharp) needle with angle of 45°; "c", extra sharp needle for infiltration of soft tissues, with angle of 30° (trocar inserted).

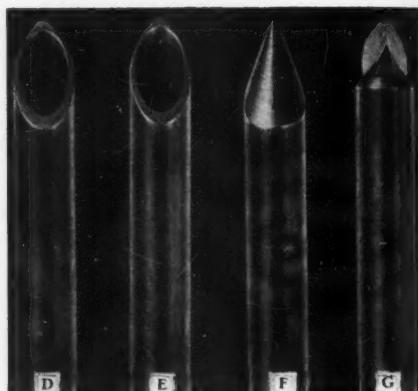


Fig. 2. Four points for hollow needles: "d", point formed by removing the sides of needle in figure "b" and leaving a short section of the sides of the oval portion to form a chisel-like cutting edge; "e", point formed by removing the sides of the oval portion of needle "c" from the center to the point; "f", conical point or "steeple"; "g", triangular trocar point with three cutting edges formed at an angle of 45°.

cess metal with a small half-rounded scraper.

While it is possible to form a usable point on any hollow needle with the use of a flat oilstone, the purpose of using the circular, power driven stone and felt wheel is to provide perfectly sharp, smooth points, which will permit a needle to be inserted with the least possible resistance and discomfort, and to form a more perfect point than can be done otherwise. When a great many needles have to be sharpened daily, as at the Mayo Clinic, a slight touch of the point to the revolving face of the wheel and brief contact with the felt surface will produce the required sharp, smooth point. The hollow needle, like the blade of a standard scalpel, also requires a slight concavity of the face of the angle to bring out the keen sharpness of the point. This is just as true of the hypodermic needle, which is but three or four times the diameter of a human hair, as it is of the large transfusion needles which are $\frac{1}{8}$ inch or more in diameter.

In some instances hollow needles are sharpened by rubbing the points on emery cloth. This is a poor system, to say the least; it is impossible

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The modern microtome occupies a high position of importance in the histological research of modern medicine. The modern microtome also plays its part in Curity suture research. Today's highly precise instrument is a far cry from the early days of wood blocks and razors. Then experiments laboriously shaved their mounted specimens long hours at a time before a cross section deemed suitable for examination was obtained . . . a section which the present techniques make crude- ly insufficient. The perfect sectioning of the microtome, even at thicknesses of five microns (1 micron = one-thousandth of a millimeter), brought new possibilities of knowledge to the field of experimental medicine.

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APPEARING IN
Annals of Surgery
Archives of Surgery
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JULY, 1936

In the study of acute appendicitis between Jan. 1, 1916 and Jan. 1, 1934, New York, it was discovered that all records were classified under improved codes. It was necessary to file appendicitis under the same code as appendicitis. Careful examination of the records showed that the new classification was correct.

by the attending surgeon, which a final diagnosis obviously belonged to acute local peritonitis, acute appendicitis, acute appendicitis or even under acute appendicitis. These were found filed under acute appendicitis. These were merely found only under instances of appendicitis which when more

From

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Vol. 47, No. 1, July, 1936

MEMBER OF H.E.A.

to produce a smooth cutting point in this manner.

The emery grains are never as fine as the grit of an oilstone, and the cloth does not have the stable support found in an oilstone. It is practically impossible to form a flat faced bevel in this manner, and the use of the emery cloth always forms a burr at the point that cannot be removed. A small hand oilstone is much preferable for hand sharpening; it is just as easy for anyone to learn how to use an oilstone properly as it is to rub the point of a needle over a piece of emery cloth. The results with the stone are so much greater, and small hand oilstones are so easily obtained that there is no reason for the use of emery cloth.

The small, flat, hard oilstone, or one of fine grit is suitable for hand sharpening and if used properly will not become full of ridges and grooves. The latter may be avoided by moving the point of the needle over all of the surface of the stone regularly and thus distributing the wear evenly.

Fig. 1 shows the face and side view of the blunt, sharp and extra sharp points of the hollow needles which are used most commonly. The trocar of needle "c" is finished at the same angle as the point of the needle and comes out just even with the face of the angle and does not extend out beyond the needle to form an obstructing projection. Fig. 2 shows four other types of points. Point "d" has a very short cutting edge which will sever the tissue and permit the point of the needle to enter and spread the

tissue enough to permit the body of the needle to enter freely. Point "e" requires about the same amount of force to enter the tissue as does point "d." The point of the needle in "c" has too much cutting edge for ideal use.

Point "f," the steeple or cone shape point, requires entirely too much force for penetration, and cannot be guided to the proper position or situation as positively as can the others. The trocar in the steeple point is a thing of aggravation to both the sharpener and the user, since it is practically impossible to sharpen it in such a manner that the trocar subsequently remains in its proper position without projecting enough to catch and tear the tissue as it is being forced into the desired situation.

The common trocar point "g" is formed by grinding the point of the trocar to form a three-sided, three-edged cutting center for the needle. This point separates the tissue ahead of the needle and allows the point freedom to enter. The trocar also fills the bore of the needle and prevents the needle becoming filled with tissue as it is being placed in the desired situation.

The advantage to be found in the use of the points described lies in the fact that they are formed by following simple, practical, natural lines of construction, and by avoiding any attempt to create, from impractical ideas, a new point for an old purpose. The direction of rotation of the grinding wheel should be away from the operator, as in sharpening scalpels.

folded back as indicated to avoid contaminating the outside of the envelope. The patient's clothes are arranged on a hanger and placed in the envelope, the hanger's hook being placed over the grommet in the space provided. Before wrapping the envelope around the clothes and tying the tapes, the nurse washes her hands to prevent contamination.

The envelope is large enough to accommodate winter clothing and to avoid undue wrinkling during the process of sterilization. After sterilization the clothes may be safely handled in the routine fashion. A limited number of envelopes will adequately cover departmental needs.

Saving Through Replacement

One of the most interesting methods of saving is that of spending. Contradictory as it seems, this has been proved by the experience of Mount Sinai Hospital, Milwaukee, where the fifteen year old gas ranges in the kitchen were replaced by ranges incorporating the latest improvements in gas and heat conservation.

Early in 1934, along with many other economy suggestions, the possibility of this replacement was first mentioned. At the time it was felt that the institution lacked funds for the purchase, and the matter was apparently dropped. However, visits were made by the hospital's officials to other institutions and relative figures on gas consumption before and after the installation of new equipment were obtained.

When it became evident from these figures that any new range would save in gas consumption over that used by the fifteen year old ranges, a gas meter was hooked up to the range system and the gas was measured for three months, taking into consideration the number of meals served. At the end of the three months, three new ranges were installed with the manufacturer's guarantee that a saving of 25 per cent would be effected or the equipment would be removed and the old equipment reinstalled without cost.

A meter was attached to the new stoves and at the end of two months it was found that 15 per cent over the guaranteed saving had been effected. The final two months that records were kept of the amount of gas used by the new equipment showed an approximate drop of 60,000 cubic feet over the same months a year before. The new stoves are paying for themselves.

Hirtha Kirsten, who has been dietitian at Mount Sinai for five years heartily approves the new gas fired appliances. "We get uniform results with these" she says, "and we have found that they are better especially for baking and roasting."

Aseptic Clothes Envelope

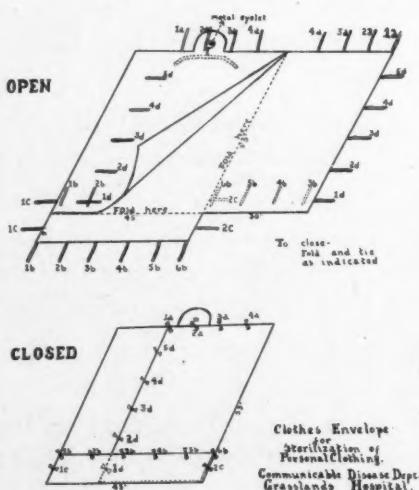
To ensure the safety and protection of both worker and patient when admission to the communicable disease department is necessary, Grasslands Hospital, Valhalla, N. Y., has devised a clothes envelope which it uses successfully in the sterilization of personal clothing. Miss A. E. Grass, director of nursing service, gives the following instructions for making this useful piece of equipment.

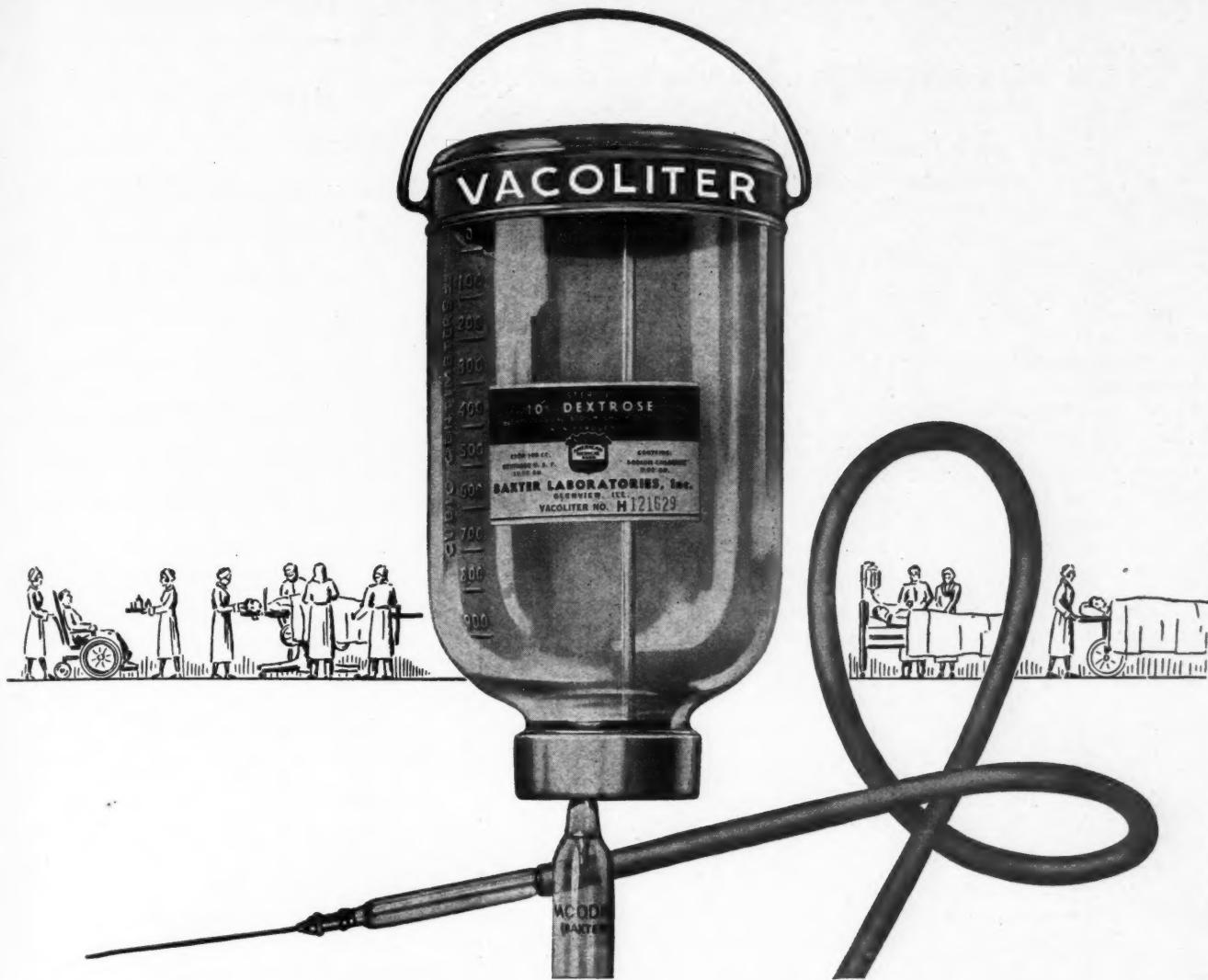
The material used in making the envelope is 4½ yards of 45-inch unbleached muslin, 10 yards of ¼-inch tape and 1 brass grommet with teeth. The muslin is cut into three 54-inch and one 9-inch strips. Two of the 54-inch strips form the main part of the envelope, the third is cut on its 45-inch side into two strips, one 12, the other 33 inches wide. The 33-inch strip is fastened lengthwise to the body of the envelope to form a flap and the 12-inch strip is used to make the turn-up bottom. The 9-inch strip from the original division of the material is used to make the rounded reenforced (4-ply)

cover and support for the clothes hanger.

Tape ties are cut and stitched as indicated in the diagram. The grommet is fastened 4½ inches below the tip of reinforcement, allowing sufficient space for the clothes hanger hook.

The clean envelope, when being used, is spread over a stretcher and the flap





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How to Campaign Against the Rat

By Joseph N. Laferriere
Consulting Entomologist, Boston

IN NEW all-metal or all-stone buildings, with solid walls and floors, rat poisons may be used without hesitation, because if a rat dies inside, it can easily be reached. Poisons may be also employed in the smaller old buildings, for the sick rat will have time to seek its harborage outside.

A complete description of traps and baits will be found in Farmers' Bulletin No. 1533 of the U. S. Department of Agriculture. The directions given there have been carefully worked out by rat specialists.

Rat traps can be considered a permanent investment, and with proper care should last for years. The simple snap trap, of which there are many on the market, is effective. It should be strong, with a sensitive trigger, and a spread of 5 inches, if possible; the larger the trigger, the better.

The number of traps needed depends upon the size and number of the buildings. They should be oiled frequently—with any oil except kerosene—in the hinges, on the trigger and on the notch. An occasional dip in melted paraffin will prevent traps from rusting. If the notch wears, it can be deepened with a file. Cage traps are also useful; the rats are drowned in a pail of water.

Need Fresh Baits Daily

A trapping campaign should be short and decisive. The baiting is important. Fresh baits should be used daily. They should be amply large and securely tied to the treadle so that the rat will pull on them and thus release the spring.

According to one authority, "a variety of baits, such as meat, vegetables and cereals, on successive traps will usually give better results than one kind of bait only. One of the best single baits is a doughnut. Bread is also good, but both of these must be fresh, for a rat will usually ignore either of them if it is a little stale. Among other foods that may be used as alternatives are raw or cooked meats, bacon, fish, apple, melon, tomato, carrot and nut meats." Like all rodents, rats are great vegetarians.

A prebaiting campaign is advisable. The traps are baited for two or three days before they are set, so that the rat becomes used to them. This practice will give an idea of the number of rats in the building.

As explained in a previous article, the rat man avoids handling the trap. This rule is absolute. New traps, even

if made of steel, should be washed in hot water, dried in the sun and smoked. After use, the trap should be cleaned again, all traces of blood removed with a brush and the trap scented with aniseed or rhodium oil.

When possible, the trap should be set on the runway. On a shelf, for instance, the rat, in his rush, will step right on the trigger. In placing the traps in prebaiting, one should be careful not to remove any object familiar to the rat's landscape. When the rat has begun to feed, it is a sign that he has become accustomed to the trap. It is better to place the trap some distance from the rat hole. When a run emerging from a rat hole is not clear, a little flour may be scattered around and the next morning the trail will be clear.

Making a Scented Trail

For the few trap-shy rats that may survive, luring is often effective. In making a scented trail from the hole, put two or three drops of rhodium or aniseed oil on a rag and pass it over the bait and the trap. A pan of water is also welcome to the ever thirsty rat. Finally, luring is especially indicated when adhesive papers are employed in rat control.

In trapping mice, the same principles may be applied, though the mouse is less cautious. Yet even it sometimes becomes shy of the trap. Poisons should not be used with mice, because they are certain to die between the walls.

Raticides must be slow enough in their action to give the sick rat time to leave the building for its watering place or its burrow. With strychnine, for instance, the nervous system is so quickly affected that the rat dies within a few feet of the bait.

With phosphorus, on the other hand, the action is slow enough to permit the rats to vacate the building. They do not object to its odor or its taste, and there is fire hazard only when the percentage of phosphorus in the paste is too high, and when the paste is not thoroughly mixed. Though undoubtedly effective against rats, phosphorus is poisonous, and in the absence of a good antidote is considered unsafe for general use, one authority declares. According to another, there is absolutely no proof that phosphorus will dry up the body.

White arsenic, or arsenious oxide, is another slow raticide; it results in purging and a severe thirst, causing

A trapping campaign should be short and decisive, according to this consulting entomologist. In the second of two articles on rat extermination, he discusses the care and setting of traps and tells what raticides to employ and how.

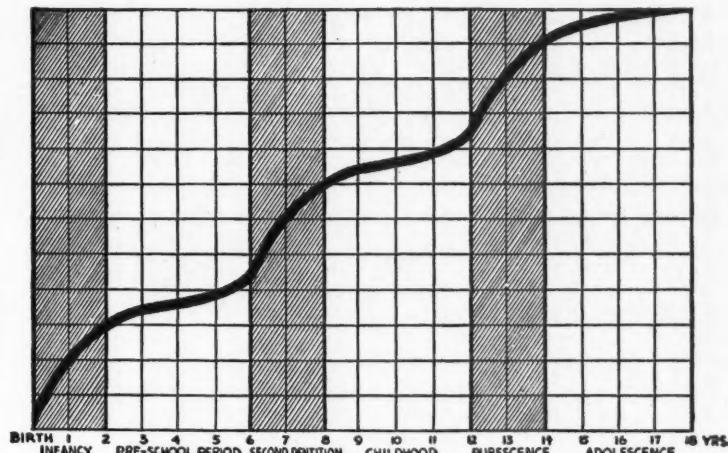
the rat to hasten to its watering place. Tasteless and odorless, this raticide is dangerous to pets and human beings, and great care must be taken in its use. The dosage is 1 part poison to 20 parts food.

Thallium sulphate, a new raticide, is also without taste or odor and is sufficiently slow in action. However, it is extremely dangerous for human beings, because it has no warning quality and there is no known antidote. For rats, it is thirty times as toxic as barium carbonate, a common raticide. The commercial preparations are in the form of a paste. This cumulative poison of high toxicity, when found necessary for the control of highly resistant species of rodents, should be entrusted solely to persons who understand its dangerous qualities and who exercise appropriate care in using it.

The safest and most satisfactory raticides for use in buildings are barium carbonate and red squill. Barium carbonate was a great favorite until recently. It is almost perfect with its lack of taste and its relatively mild toxicity to other animals, which are seldom harmed by the small doses found in rat baits. It produces an intense thirst and leaves the rat plenty of time (from a few hours to several days) to seek its nest. The dose is 20 per cent. If the bait is mixed with 20 per cent of this poison, only 5 per cent of the rats will survive. Most die within sixteen hours. It should be kept out of the way of pets.

Before using this poison, one should read the carefully worked out directions of Silver in the Farmers' Bulletin No. 1533, previously mentioned. If three varieties of food are offered, the rat has a choice and is more likely to be tempted. It is recommended, then, to mix separately with barium carbonate one of each of the following classes of food: "Cereals, such as bread, corn meal and rolled oats; meats, such as Hamburg steak, sausage, sardines or eggs; fruits and vege-

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CYCLES OF GROWTH FROM BIRTH TO MATURITY

The course of growth from birth to maturity is continuous but rhythmic. This span includes three cycles. The rapid growth in infancy is followed by the slow growth during the pre-school period; the rapid growth during the period of second dentition is followed by the slower growth during childhood; finally, the rapid growth during pubescence is followed by the slower growth during adolescence.

From Kugelmas' "Growing Superior Children", 1935. (Appleton-Century)

How much should a child grow or gain from time to time? That is more significant than mere weight and height measurements. *To the parent* the mark on the wall and the reading on the scale reveal the child's growth. But *to the doctor* deviations from the periodic gains offer a sensitive index of dietary or disease disturbances.

The weight curve in infancy furnishes the most delicate index of progress. The birth weight doubles at five months and trebles at a year. Thereafter gains are slower; six pounds during the second year; five during the third; four during the fourth and fifth years. The trend of the first growth cycle is indicated in the chart.

This pattern of growth repeats itself during childhood and adolescence. Once the growth increments have been determined for a child, his assessment becomes individual and accurate.

When the child fails to gain in weight,

high caloric feeding is simplified by reinforcing food with Karo Syrup. If the total caloric intake exceeds the output, the child will gain weight, provided the diet is adequate and chronic disturbances corrected. Every article of diet can be enriched with calories—Karo provides 60 calories per tablespoon. It is relished added to milk, fruit and fruit juices, vegetables, vegetable waters, cereals, breads and desserts. Karo consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor).

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tables, such as apples, melons and tomatoes."

The powdered barium carbonate is mixed into the soft cereal or the ground meat with a spoon, in the proportion of 1 part to 6 parts of the food. Water is added to make the bait moist. For a permanent bait, it is mixed with flour or oatmeal and will keep indefinitely.

Since 1923, barium carbonate has been largely replaced by red squill, which is almost as harmless to human beings and domestic animals. Pets will not touch it because of its acrid taste, and if they do eat it, it acts as a violent emetic. Rats do not at all object to its taste, and by a singular accident of nature, they are unable to vomit. Consequently red squill is practically a specific.

How to Use Red Squill

For the use of red squill, one should consult Farmers' Bulletin No. 1533 by Silver, and Leaflet No. 65 of the U. S. Department of Agriculture by Silver and Munch. The poison is sufficiently slow in its action. Rats eat a fatal dose, usually become lethargic within an hour or two, and after from four to fourteen hours begin to show the characteristic tremors and rolling motions. These continue for half an hour, or possibly twenty-four hours, until death. The standard product may be obtained at the government plant, which is under the direction of the College of Agriculture at Amherst, Mass.

Enough bait must be set out to destroy every rat in the colony. The best results are obtained when several kinds of food are exposed to tempt the appetite of every rat. One of the greatest rat men of our time invariably uses three kinds of food. The rat then is bewildered in his choice; he may be wise enough to pass up one bait, or even another, but he will fall for the third! At such a time all food supplies in the building are removed, if possible.

The Bureau of Biological Survey (Silver and Munch), as the result of long experience, recommends the following baits:

1. Fish, either fresh or ground in a meat chopper; or a cheap grade of canned salmon, canned mackerel or sardines in oil. A thin paste is made with 1 ounce of squill powder; then it is mixed thoroughly with 1 pound of fish. Or the paste may be added to 1 pound of meat.

2. Cereals. One ounce of the squill powder is mixed dry with 1 pound of cereal meal, such as oatmeal, graham flour, corn meal or bran. This is still more tempting to the rat when it is changed into a mush with 1 pint of sweet milk or water.

3. Fruits and Vegetables. These are sliced and then sprinkled with the powder.

A large number of small baits are more effective than a few large ones. They may be exposed—in pieces about the size of marble—in small squares of newspaper or in small paper sacks closed by twisting the tops. Each variety should be wrapped separately and placed in sequence, first a meat bait, then a fish bait, then a cereal bait, and so on. The fresh baits are set out late in the afternoon and should be left out for three days, after which they can be destroyed.

Squill powder is just as effective when mixed in a dry cereal meal, and in this form will keep in good condition for a long time in poison caches, which may be laid out against stray rats that may come in from time to time. As squill has a specific taste that may be remembered by the rats that have survived, it is better to change to barium carbonate in a second application or to use prebaiting.

The mortality may be so great that the survivors are scared away and the infestation completely ended. Dead bodies may be found in the neighboring fields near the watering places, though many of the rats die in their harborage. In the cities, however, so many die in the sewers and are washed away that few bodies are found in the nests when these are torn up after a poisoning campaign.

During the bubonic plague in San Francisco, great numbers of dead bodies were seen floating down the bay. These poisoned rats had died in the sewers. Mice, on the other hand, would certainly have died between the walls.

An exterminating job in a building would not be complete without complete destruction of the harborage, which, as explained before, must be sought outside under low lying floors and covered areas. Then the building should be ratproofed. Information relating to ratproof construction and repair is furnished on request by the Biological Survey, U. S. Department of Agriculture.

Guarding Against Explosions

Because of disastrous experiences elsewhere, hospitals are concerned about guarding against possible gas explosions in the operating room. Such precautionary measures as high humidity, proper electrical circuits and switches and static discharge have been fairly well standardized and should be used. "However," says W. Mezger, superintendent, Knickerbocker Hospital, New York City, "do not overlook frequent periodic inspections and maintenance not only of the safety measures that have been installed but also of electric cords, portable operating lights, wall and ceiling lights, x-ray view boxes, suction pumps and any other electrical equipment in the operating room."

THE HOUSEKEEPER'S CORNER

• Organization of the Baltimore chapter of the National Executive Housekeepers Association was finally completed at a recent meeting conducted by Ruth Parker, R.N., executive housekeeper of the Sheppard and Enoch Pratt Hospital, Towson, Md. The officers and board of directors include several hospital women. Mildred H. Lane of James Lawrence Kernan Hospital, Hillsdale, Md., is secretary and treasurer and Katherine Scott, in charge of the nurses' home of Sheppard and Enoch Pratt Hospital is corresponding secretary. The board of directors includes Mary J. Nice, Union Memorial Hospital, Cecilia Figel, South Baltimore General Hospital, Mrs. Daisy A. Bowen of Sinai Hospital and Mrs. Elliott, Maryland State Presbyterian Home.

• One of the outstanding bits of news at the Chicago meeting of the National Executive Housekeepers Association was Mrs. Doris Dungan's retirement from the post of housekeeper at Jeanes Hospital, Fox Chase, Philadelphia, and her appointment as executive housekeeper at the West Jersey Homeopathic Hospital, Camden, N. J. Mrs. Dungan assumed her duties June 1 and is receiving the congratulations of her many friends at her new address.

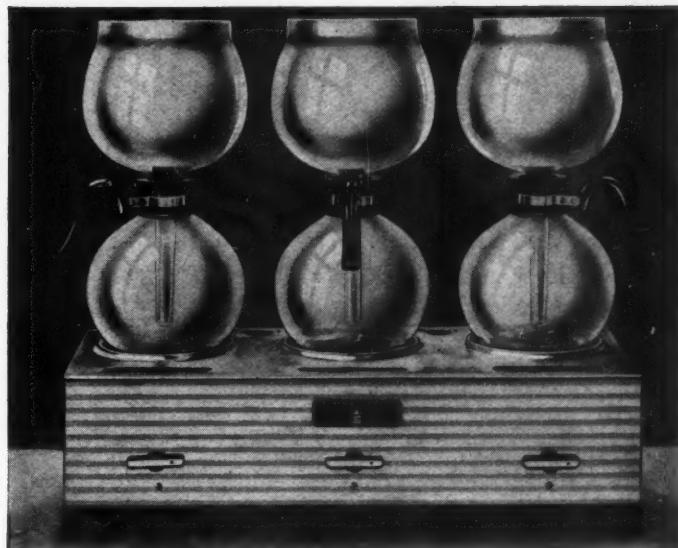
• Due recognition was accorded Mrs. Dungan, the retiring president of the Philadelphia chapter of the National Executive Housekeepers Association at the regular meeting held in June, and a gift was presented as a token of appreciation for the work she has done for the Philadelphia chapter. Amelia Vossen of the Barclay Hotel succeeds Mrs. Dungan as president, with Mrs. Kathryn Kugler of Jeanes Hospital as vice president. Mrs. Kathryn Pieleke of University Hospital is recording secretary, and the following hospital women are included on the board: Mrs. Irene Kraue, Chestnut Hill Hospital; Anna Walden, Presbyterian Hospital, and Mrs. Mary Sullivan, Children's Hospital.

• The last meeting for this year of the Chicago chapter of N. E. H. A. was held at the Parkway Hotel on June 4. Officers were elected and re-elected at this time. Amongst those who represent the hospital field are Mrs. Alta M. LaBelle, Michael Reese Hospital, elected corresponding secretary and Bella Leopold, Mount Sinai Hospital, reelected to the board of directors. Mrs. Marion Wyatt, Sherman Hotel, was reelected president.

• Encouraging news from Chicago was reported by Gladys Hancock at the regular meeting of the Connecticut Chapter of the National Executive Housekeepers Association. Mrs. Hancock was a delegate to the N. E. H. A. Third Annual Congress.

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Conducted by Anna E. Boller, Rush Medical College

Accounting for Dietary Costs

By Charles A. Togut, C.P.A.

Comptroller, Manhattan General Hospital, New York City

HOSPITAL accounting presents many problems wholly foreign to ordinary business enterprises, because of the unique character of the services rendered. Within hospital walls are combined such functions as room and board, operating room facilities, x-ray service, pharmaceutical preparations and a host of similar activities, therefore accounting and cost practices must be adapted to the necessities of these services, rather than follow blindly accepted accounting procedure. The operating efficiency of the institution depends to a considerable degree upon periodic cost statements which specifically portray the departmental activity.

Among the aims of hospital administrators are: (1) detection of losses resulting from improvident purchasing policies; (2) prevention of waste in the consumption of materials both surgical and miscellaneous; (3) arrest of losses resulting from inefficiencies of labor; (4) control of operating expenses of the various departments.

Installing the System

These results can be attained by the installation and maintenance of a simplified yet comprehensive cost accounting system. Existing accounting facilities may be utilized without additional expense or assistance for the operation of the necessary forms and records and the preparation of periodic analytical statements.

Certain fundamental considerations must be borne in mind during the installation process of a cost accounting system. These are within the province of the hospital accountant and auditor. First, the system is dependent upon a workable perpetual inventory control of all materials, supplies, food-stuffs and in general any operating expenditure which results in an exchange of physical values. Perpetual inventory control records vary greatly with the education of the accountant. However, it is unnecessary to adopt any standardized form or method. From this control is obtained the

quantity of materials, supplies, food-stuffs consumed during the operating period and their respective costs.

Frequently the calculation of actual consumption represents merely a transcript of the purchases during the month without taking into account the supply on hand at the beginning of the period and deducting that which remains at the close. A perpetual inventory control system is the very heart of any accounting system, be it general or cost, and its absence is clearly shown by the inaccuracies that appear on operating statements.

Second, the question of depreciation of the operating and fixed assets arises in conjunction with the amount that is chargeable as a periodic operating expense for the departments. These assets should be inventoried to furnish a basis for the computation of depreciation rates. There exist many varying rates of depreciation which, when incorrectly applied, result in a misstatement of that part of operating cost. Furniture and fixtures depreciate over a longer period than do surgical instruments.

Each employee should be classified as to his departmental activities, whether engaged therein directly or indirectly.

There are many other minor sched-

ules that require application, for example, in regard to floor space occupied by the various departments for the determination of rent and tax expense. Similarly, if possible, the department's electrical consumption should be metered.

The utilization of the combined data will amaze the administrator by providing him with operating details which were impossible to assemble previously. The accompanying statements are illustrative of computations prepared from the cost accounting records of a dietary department. Statements of this type can be expanded to meet the demands of the institution.

The first statement is one showing the expenses constituting the dietary costs for a month. This statement at a glance reveals what the cost of operation was and its composition. This is normally what is gained from general accounting and it is apparent that the statement is meaningless without explanation and interpretation of the important expenses.

Schedule A, a statement of dietary costs, is next prepared to show the cost of salaries in detail. The administrator is thereby apprised of every employee in the department, their

STATEMENT OF DIETARY COSTS FOR DECEMBER, 1935

Salaries—Schedule A	\$2,700.00
Foodstuffs—Schedule B	4,190.25
Supplies—Schedule C	365.00
Rent: based on cubic feet of space, main and diet kitchens, storeroom and dining room	750.00
Gas (actual consumption—metered)	200.00
Electricity (actual consumption—metered)	125.00
Taxes (same calculation as rent)	325.00
Ice	100.00
Total dietary costs for December, 1935	\$8,755.25

COMPUTATION OF COST PER MEAL SERVED FOR DECEMBER, 1935

	Meals Served	Cost of Meals
<i>In-Patients</i>		
10,000 patient days as per census report multiplied by three daily meals	30,000	\$6,300.00
<i>Employees</i>		
125 employees, receiving three meals a day multiplied by thirty-one days	11,625	2,455.25
Total number of meals served	41,625	\$8,755.25
These figures coincide with dietitian's record of meals served:		
Cost per meal: meals served divided into cost of meals equals cost per meal of		\$0.21
Cost per meal for month of November, 1935, based on 43,225 meals served		0.195
Increase in cost per meal		\$0.015

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duties, salaries and finally the total salaries of the subdivisions of the dietary department. Comparisons with previous periods are effected with ease and understanding. The source of information for this schedule is the pay roll records maintained in the dietary department and submitted periodically to the accounting division.

Schedule B, costs of foodstuffs used, exhibits factual information which is pertinent and indispensable. Each important food is listed with the quantity consumed, the average price of the unit used and the total cost; then follows the total classified cost. This statement is a splendid example of the achievement and practicability of the perpetual inventory record which is maintained in the stores division of the dietary department.

Schedule C shows the supplies used both as to quantity and cost, under such headings as napkins, tray covers, stationery and printing, laundry, miscellaneous, giving quantity, unit price and total.

The final schedule, reproduced here, is one of extreme importance and use-

fulness. It is the computation of cost per meal served. The cost is derived from information shown on the statement of dietary costs and from the dietitian's record of patient days and meals served. This statement explains the fluctuation in costs as compared with prior months, and provides a guide for the detection of operating deficiencies disclosed in statements that precede it.

Objections are often raised regarding the expense of installing and operating a cost accounting system. However, this system is an integral part of the general accounting order of the institution. Its records are the accounting records and much of the information derived from the general accounting division is used interchangeably for both cost and auditing purposes. The administrator in controlling operating expenditures is therefore vitally assisted by the amplifying information resulting from departmental operating statements. These statements become a necessary factor in the efficient management of an institution.

Planning a Permanent Diet for the Allergic

By John P. Henry, M.D.

Memphis, Tenn.

In ALL suspected cases of food allergy a careful history should be taken in regard to food likes and dislikes, also whether or not certain foods actually disagree. From this information, together with the clues obtained from testing, a trial diet is made up. It may take a week or ten days for complete elimination of the foods present in the tissues so that a few days or even a week on a trial diet is insufficient. As a general rule the trial period should last at least three weeks.

The trial diet should be composed of fruits, meats, vegetables, cereals, beverages and desserts, but should not contain any foods which have reacted on skin testing or foods that are positively known to disagree. If testing has been thorough and included 100 or 150 foods, no trouble is encountered, as a rule, in obtaining negative foods in all the groups mentioned.

When the correct foods have been eliminated the symptoms should clear up or greatly improve by the end of the trial period. Then the patient is instructed to add any food desired, including those that reacted, but only one at a time. Some foods cause trouble within a few minutes while others require three or four days to produce symptoms, hence each of the

common and important foods should be tried at least four or five days before another is added and only those foods which can be proved harmful should be eliminated entirely.

There are certain facts which help us to enlarge a diet: one is the influence of heat. Patients who are extremely sensitive to wheat may not be able to take it in any form but those who are mildly sensitive can sometimes take wheat which has been subjected to sufficient heat, such as bread that has been thoroughly toasted on both sides or shredded wheat. The same is true in regard to milk and egg. Many children who are unable to take raw sweet milk can take heated milk, particularly the evaporated milks. We have seen many who could not take egg raw, soft boiled or fried but could take unlimited quantities of hard boiled egg.

One has to determine, in making up a permanent diet, whether certain foods must be eliminated completely or taken in small quantities. For example, there are those who cannot take milk as such but they can tolerate it in foods which do not contain too much milk, such as corn bread. Others who are mildly sensitive to egg and milk can take both in a food like corn bread but cannot tolerate ice

RECIPES BY REQUEST

Submitted by
Evelyn L. Anderson
Dietitian, Passavant Hospital,
Chicago

Cherry Roly Poly (100 servings)

$\frac{1}{2}$ cup cornstarch
4 cups sugar
5 quarts sour red cherries
4 cups bran
6 cups milk
12 cups flour
10 tablespoons baking powder
2 tablespoons salt
1 cup sugar
2 cups shortening

Mix cornstarch and sugar, add cherries and bring to a boil. Strain cherries from juice. Soak bran in milk. Sift flour with baking powder, salt and sugar. Cut in shortening until mixture is like cornmeal. Add bran and milk, stirring only until flour disappears. Turn on to floured board. Knead lightly and roll into sheet $\frac{1}{4}$ inch thick. Cut into squares with floured knife, place a few of the cherries in the center of each square. Moisten the edges and fold to make a triangle, pressing edges firmly together. Dot with butter and sprinkle lightly with sugar. Bake in hot oven (425° F.) about 15 minutes. Serve hot with the juice and remaining cherries reheated.

Sweet French Dressing

1 gallon salad oil
2 quarts sugar
 $\frac{1}{6}$ cup mustard seed
 $\frac{1}{8}$ cup celery seed
 $\frac{1}{8}$ cup salt
2 cups onion juice
 $1\frac{1}{2}$ cups lemon juice
 $1\frac{1}{2}$ cups vinegar

Combine dry ingredients. Add oil very slowly and beat thoroughly between each addition. The second half of the oil may be added more rapidly. After all of the oil has been used, beat in the lemon juice, vinegar and onion juice.

cream. Some cannot take raw sweet milk but can take cheese without trouble. These are matters that have to be worked out after the trial period. It is also well to caution allergic individuals not to take excessive quantities of any one food. For example, certain individuals who are mildly sensitive may take milk or Irish potato once or twice a week without trouble but if used on successive days symptoms occur.

As a general rule, cooked foods are less likely to cause trouble than raw foods, consequently, in making up a trial diet, all of the foods are well cooked except for one fresh fruit, pro-



SECTION

If you are sensitive to wheat alone, you may eat:

Beverages—Cereals, beverages or coffee substitutes made from wheat. Information as to ingredients may be found on can or package.

Breads

Hot breads, such as muffins, waffles, baking powder biscuits, rolls, doughnuts.

Wheat breads—This will follow:

Corn bread (unless made of all wheat flour).

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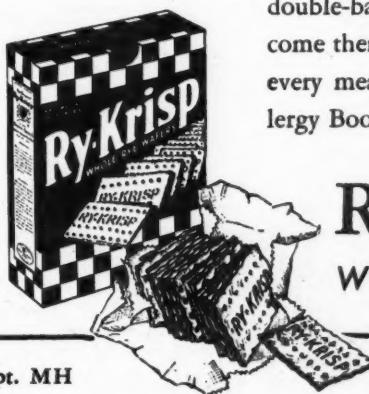
To help you in recommending diets for patients allergic to wheat, milk or eggs

PATIENTS, as a rule, cannot be expected to know that most rye bread contains wheat, that many baking powders contain egg, or that margarines are often made with milk. Yet food anomalies, such as these, all too frequently complicate the diets of patients sensitive to wheat, milk or eggs.

To help you help your patients avoid serious dietary mistakes, we have prepared, with the aid of leading allergists and dietitians, the booklet shown above, now in its sixth edition. In this booklet are complete lists of allowed and forbidden foods as well as interesting suggestions for

patients sensitive to wheat, milk, eggs or a combination of all three. Copies for distribution to your patients will be sent *free* on request. *No booklets are given to the laity. They are for the exclusive use and distribution of professional people.*

Upon examining the booklet you will find Ry-Krisp used frequently in the approved recipes. These wafers are perfectly safe because they are simply whole rye, salt and water, double-baked. So delicious, patients welcome them as bread, toast or crackers with every meal. For free samples and the Allergy Booklet, use the coupon.



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vided there is no indication of sensitization. We also exclude from the trial diet foods that are known to be frequent offenders, such as nuts, shell fish, berries, and in most instances we try to exclude wheat, egg, milk and Irish potato as such because these latter four are among the most frequent offenders.

There is another group of foods which frequently cause trouble in allergic individuals as well as those with chronic cholecystitis. In this group are included such foods as raw apple, raw onion, cabbage (particularly cooked), turnip, cauliflower, broccoli, brussels sprouts, radish, cucumber and bell (green) pepper. Cabbage seems to be the one exception to the rule that most individuals tolerate cooked foods more easily than uncooked ones. As a rule, this group is among the foods excluded from our trial diets.

Patients on a trial diet must be cautioned not to take ketchup, parsley, beer, mayonnaise, ginger ale, yeast, cod liver oil, chewing gum or any other product unless it is found on their list. If an allergy to drugs is suspected, all laxatives, headache tablets and other drugs frequently taken as home remedies should be discontinued entirely during the period that patients are to be placed on a trial diet.

This Diet Found Helpful

From all that has been said above, one may get the impression that our trial diets contain very few foods but this is an example of a diet which gave relief to one patient:

Fruits: prunes; canned cherries; canned peaches; canned pears; cooked figs; dates and pineapple juice.

Meats: lamb and beef, to be broiled or roasted and cooked extra well done; beef tongue; ham; thin, crisp bacon; liver, and broiled, baked or roasted chicken.

Vegetables: carrot; asparagus; eggplant; turnip or mustard greens; squash; beet; artichoke; okra, and corn, all to be well cooked.

Cereals: rice, with butter or ham gravy; grits, with butter or ham gravy and corn bread.

Miscellaneous: coffee; sugar; salt; butter; vinegar; $\frac{1}{2}$ teaspoonful heavy cream in coffee, and meat broth or bouillon.

Dessert: plain gelatine; pineapple sherbet (mostly a flavored ice) and fruits which are canned or cooked, as allowed.

This patient, with a gastro-intestinal allergy, reacted to twenty-five foods, such as grapefruit, orange, lemon, coconut, ginger, celery, Irish potato, the pea-bean family (including peanut), watermelon, spinach, chocolate and cod fish.

After ten days on the trial diet her symptoms disappeared. At the end of her trial period the patient was in-

structed to add any food she desired, one at a time. After doing this she reported that the following foods were found responsible for her symptoms: peanut, chili, olive, shrimp, chocolate and Irish potato.

She Lost Twenty-five Pounds

Following the removal of offending foods, once they have been detected, the diet should then be adjusted so that it contains the necessary vitamins. There is absolutely no excuse for diets prohibiting the use of proteins, fats and carbohydrates at the same meal. We recently saw a patient who had lost twenty-five pounds and become neurotic because such a diet had been prescribed for her hay fever. Planning the day's meals had become a torture to her, so afraid was she that proteins and carbohydrates would be taken at the same time. Finally, when it was explained to her that if only protein is eaten the body converts 58 per cent of it into sugar, she was convinced that she could eat a balanced meal.

I should like to emphasize the treatment of allergic headache by means of skin tests and trial diets. Until recent years patients complaining of so-called "sick headaches" were examined thoroughly, their skull, sinuses, teeth and gastro-intestinal tract being x-rayed. As a rule all examinations proved negative because these individuals had good health otherwise. They were then told they had migraine for which there is no cure, but that the avoidance of worry, anxiety, fatigue, and other excesses would help and eventually the headaches might improve or disappear at the age of fifty or after. We know that many of these headaches for which no cause can be found are allergic because relief is obtained when offending foods are eliminated.

When Pickles Are Served

For patients who may have pickles, these may be made into interesting garnishes. They also are attractive for meat and salad dishes. For example, in one end of a sweet gherkin stick two whole cloves for legs, black seeds for eyes and a bit of cinnamon bark for a beak. This makes a queer looking bird! Another animal can be devised using four whole cloves stuck along the back for a spine. Another pickle monster has no legs but has a tail made of red pepper and eyes of seeds. With a bit of ingenuity many animals may be devised with peculiarly placed legs, fins, eyes and tails using pickles for the body, cloves, cinnamon bark, red pepper and seeds for the appendages. Toothpicks may be found useful to keep them in place.

FOOD FOR THOUGHT

• Dietitians are always interested in the way guest trays are handled. Mayme Lewis of Saginaw General Hospital, Saginaw, Mich., says that requests for guest trays are usually received by the nurses in charge of the floors. Order slips are sent by them to the business office for recording of charges and then to the dietitian's office. The prices charged are: for breakfast and lunch, 35 cents; dinner, 50 cents; holiday dinner, 75 cents.

• A recent discovery by Dr. Franklin D. Barker and Dr. Wayne Wantland that vitamin D has a definite therapeutic value in the treatment of trichinosis is interesting although the disease is rather rare. The few outbreaks that occur have been so hopeless that a specific for the disease will be appreciated.

• An interesting new book has been issued on dinnerware, edited by the department of research under Bernice Dodge, home economist, Household Finance Corporation. This outlines briefly the kinds of dinnerware and how they are made, the glaze, the wearing qualities and many other points that are always helpful in guiding one in the selection of china.

• A bulletin from Cornell by Day Monroe and Mary Henry is planned for the housewife but the dietitian will find many helpful suggestions on purchasing in this bulletin. The fact that small savings save solid sums in the household is even more true in institutional buying. This bulletin is entitled, "It Pays to Buy Food Wisely." It is issued as Bulletin 237.

• Another interesting point on vitamin C is made by Mark P. Schultz, Jewels Sandroy and Homer Smith. They reported, at the American Society for Clinical Investigation, that vitamin C prevents scurvy, but does not cure rheumatism in humans, although experimental work had indicated the contrary is true in rats.

• The new edition of "Institutional Recipes" under the title of "The Use of Rice on the Hospital Menu" as written by an outstanding dietitian is now available through the Southern Rice Industry. If you haven't seen a copy, be sure and get one.

• The question of certified milk is often a puzzling one. A new booklet, "The Facts About Certified Milk" by the American Association of Medical Milk Commissions with a foreword by Dr. M. J. Rosenau gives a great deal of information regarding this product and should be of interest to every dietitian.

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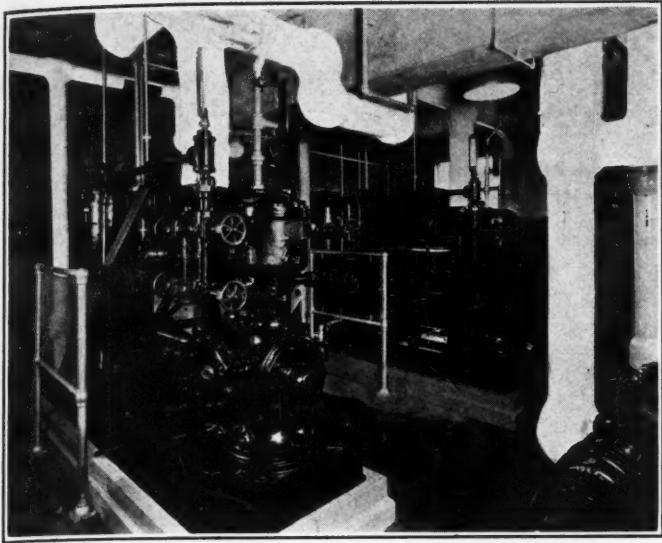
August Dinner Menus for the Staff*

By Louise Wilkerson

Chief Dietitian, Barnes Hospital, St. Louis

Day	Soup or Cocktail	Meat or Substitute	Potato or Substitute	Vegetable	Salad or Relish	Dessert
1.		Roast Veal With Gravy	Browned Potatoes	Green Beans	Watermelon Pickles	Apple Pie
2.	Fruit Juice Cocktail	Broiled Steak	French Fried Potatoes	Fresh Spinach	Tomato Salad	Hot Fudge Sundae
3.		Roast Lamb, Mint Sauce	Parsley Buttered Potatoes	Creamed Peas	Pickled Beet Salad	Fresh Peach Shortcake
4.		Veal Steak with Country Gravy	Mashed Potatoes	Buttered Carrots	Green Tomato Pickles	Chocolate Ice Cream
5.	Fruit Punch	Baked Pork Chops		Corn on the Cob	Mixed Green Salad, French Dressing	Watermelon
6.		Pot Roast of Beef With Gravy	Boiled Rice	Green Beans	Cabbage Slaw	Lemon Chiffon Pie
7.		Fried Fish, Tartare Sauce	Hashed Brown Potatoes	Fresh Spinach	Radish Roses	Cherry Sundae
8.		Creole Liver	Au Gratin Potatoes	Harvard Beets	Apple and Grape Salad	Coconut Layer Cake
9.	Tomato Bouillon	Fried Chicken With Cream Gravy	Banana Fritters	Buttered Asparagus	Cucumber Salad	Apricot Sherbet
10.		Swiss Steak With Gravy	Mashed Potatoes	Buttered Carrots	Sliced Tomato Salad	Baked Pears
11.		Cold Roast Pork	Summer Squash	Escalloped Corn	Relish	Frozen Custard
12.		Breaded Veal Cutlets	Creamed Potatoes and Peas		Lettuce and Cucumber Salad	Blackberry Cobbler
13.		Roast Beef	Browned Potatoes	Harvard Beets	Carrot, Turnip and Celery Strips	Watermelon
14.		Baked Fish, Creole Sauce	Boiled Potatoes	Corn on the Cob	Tomato Salad	Lemon Milk Sherbet
15.		Breaded Mock Drumsticks	Candied Sweet Potatoes	Creamed Peas	Green Tomato Pickles	Jelly Roll
16.	Pineapple Juice	Baked Ham, Mustard Sauce	Browned Potatoes	Green Beans	Lettuce, French Dressing	Peach Ice Cream
17.		Baked Veal Cutlet	Mashed Potatoes	Buttered Carrots	Dill Pickles	Gooseberry Pie
18.		Roast Lamb With Gravy	Belgian Baked Potatoes	Fresh Spinach	Pickled Beet Salad	Peach Shortcake
19.		Breaded Pork Cutlets	Succotash	Buttered Cabbage	Molded Pineapple and Cucumber Salad	Frozen Custard
20.	Fruit Juice Cocktail	Broiled Steak		French Fried Egg Plant	Sliced Tomato Salad	Tapioca With Whipped Creamed
21.		Salmon Croquettes, Cucumber Sauce	Parsley Buttered Potatoes	Creamed Peas	Radish Roses	Macaroon Ice Cream
22.		Creamed Sweetbreads	Buttered Noodles	Green Beans	Cabbage Slaw	Watermelon
23.	Jellied Consommé	Chicken Maryland	Sweet Potato Balls	Fresh Corn	Mixed Green Salad, French Dressing	Cherry Sundae
24.		Pot Roast of Beef	Browned Potatoes	Harvard Beets	Molded Vegetable Salad	Peach Dumpling, Caramel Sauce
25.		Veal Birds With Gravy		Tiny Lima Beans	Fresh Fruit Salad	Hot Fudge Sundae
26.		Cold Baked Ham	Candied Sweet Potatoes	Fresh Spinach	Spiced Apples	Watermelon
27.		Liver Patties	Creamed Potatoes	Buttered Carrots and Peas	Green Tomato Relish	Grapenut Ice Cream
28.		Fried Fish, Tartare Sauce	Lyonnaise Potatoes	Green Beans		Fresh Fruit Cup
29.	Jellied Consommé	Roast Pork		Baked Squash	Cucumber Salad	Cottage Pudding, Vanilla Sauce
30.	Fruit Punch	Rib Roast of Beef, au jus	Browned Potatoes	Buttered Carrots	Relish	Raspberry Ice
31.		Baked Veal Cutlets With Gravy	Mashed Potatoes	Buttered Cabbage	Carrot, Celery and Turnip Strips	Lemon Chiffon Pie

*Recipes will be supplied on request by Anna E. Boller, The MODERN HOSPITAL, Chicago.



Oneonta State Hospital Installs Automatic



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For maintaining constant temperatures in each of their ten cold storage rooms, this New York State Hospital uses the two 5 x 5 Frick combined ammonia refrigerating units illustrated. Four mortuary compartments are also held at 40 degrees F. by two ½-hp. Frick low pressure units (not shown).

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NEWS IN REVIEW . . .

Rochester, N. Y., Reports on Its First Year of Group Hospitalization

Over 10 per cent of the population of Rochester, N. Y., enrolled for group hospitalization during the first year of operation of the Rochester Hospital Service Association, according to a report from Sherman D. Meech, managing director. The first year ended on June 1, 1936, with 20,390 subscribers and 16,690 dependents, or a total of 37,080. According to the latest census, the population of Rochester is 328,000.

Financial reports for the first eleven months of operation show a total income from premiums of \$97,574. Of this \$38,630 was paid to the hospitals for care of insured patients, \$29,707 was set aside as a reserve for future hospitalization, and \$13,036 was used for administration and promotional expenses. There was a surplus for the eleven months of \$16,200.

The subscribers used 0.4827 days of hospital service per member year and the dependents, where there was only one, used 0.5728 days of service per year. Where there were two or more dependents they together used 1.086 days of hospital service per contract year. The reserves are computed on the basis of one day of service per member or dependent per year. The average stay for the subscribers was 8.55 days, for first dependents, 8.63 days, and for second and subsequent dependents, 7.84 days.

Booklet on Fire Insurance Published in California

A booklet on "Hospital Fire Insurance" has been published by the fire insurance committee of the Association of California Hospitals. The report states that the committee in cooperation with the Board of Fire Underwriters of the Pacific has been able to bring about material reductions in the rates applying to fire-proof and masonry hospitals in California.

The report discusses the co-insurance clause (called "reduced rate average clause"), appraisals, the fallen building clause waiver, and the watchman and clock warranty. Most of the report is devoted to quoting the rates on particular types of hospitals in various cities and towns throughout the country. Hospitals are classified according to type of construction

A new contract with the hospitals has been prepared which provides for payments at all-inclusive rates rather than at basic room rates, plus extras. For subscribers the hospitals will now receive \$6.25 a day, and for dependents, \$3.15 a day (dependents receive only one-half the benefits of subscribers). For cases that stay only one day, however, the rates are \$12 and \$6, respectively. Those subscribers who renew their subscriptions for a second year are given a longer period of hospital care, the twenty-one-day limit being raised to twenty-eight days. Also the Rochester plan pays for hospitalization outside the city of Rochester at the rate of \$5 a day for the subscriber and \$2.50 for dependents. After renewal, however, these payments are raised to \$6 and \$3, respectively.

In commenting on the coverage, Mr. Meech recently recommended an all-inclusive service but added: "In Rochester we were unable to include x-rays because of the arrangement between the hospitals and the roentgenologists. This exclusion, however, was not a detriment to our plan. I also believe that anesthesia should be a part of the service given, but hospitals having physician anesthetists will be receiving less for services than hospitals having nurse anesthetists. This has been one of our problems."

and the classification of the town, that is, its water supply, fire department, building ordinances. Rates are given for insurance of the building and the contents.

Copies of the report may be obtained from the association for fifty cents.

Hospital Opens Branch Clinic

A downtown clinic is being opened July 1 by the Santa Barbara General Hospital, Santa Barbara, Calif., in a small building that the hospital is renting from the Visiting Nurses' Association. Medical treatment will be given two or three days a week at the clinic, which will be open but a few hours each day. Dr. R. W. Lambuth, house medical director of the hospital and county physician, will supervise the clinic.

Hospitals Urged to Establish Collapse Therapy Clinics

Every general hospital in Chicago was asked to establish a collapse therapy clinic for tuberculosis cases at a meeting held on June 1 at the Chicago Municipal Tuberculosis Sanitarium, Chicago. Dr. Alan J. Hruby, secretary and member of the board of managers of the sanitarium, made the plea to administrators and members of medical staffs of Chicago hospitals.

Dr. Hruby outlined the advantages of collapse therapy in tuberculosis as follows: it has reduced the average time required for treatment from eight years or more to less than one year; this has cut the waiting list and given a greater turnover of patients; it has reduced contagion by eliminating tubercle bacilli from sputum in 40 to 60 per cent of patients; it has reduced mortality to the lowest point in the history of Chicago; it has cut relapses of patients to a negligible number, even though 85 per cent of the patients are far advanced cases.

"The greatest lesson we have learned from five years' experience with collapse therapy," said Dr. Hruby, "is the necessity of collapsing the lungs early. But unfortunately we don't see the early cases. They are under the care of private doctors or in the voluntary hospitals. That is why we should like you to undertake collapse therapy. We shall be glad to do everything we can to aid."

Nursing School to Reopen

After a temporary discontinuance during the depression, the Women's and Children's Hospital, Chicago, is resuming its nursing school beginning this fall. The decision to reopen the school, which was closed in 1931, results partly from difficulties in getting nurses in Chicago and partly because the hospital believes that it can offer an excellent quality of training. Among the women who compose its medical staff are several who are on the faculties of the leading medical schools of Chicago and others who are well qualified to give instruction in various subjects. It is planned to give approximately 1,200 hours of classroom instruction and to follow the new curriculum of the National League of Nursing Education when this is published. This school, which was originally opened in 1873, is the oldest school of nursing in Chicago. Mrs. Edna H. Nelson is superintendent of the hospital.

New 60-Bed Hospital Planned

Plans are under way for a new modern hospital building with accommodations for sixty beds to be erected in Suffern, N. Y. It will be directed by the Good Samaritan Hospital.

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Plans for Welfare Island Hospital Made Public

Plans for the new \$5,500,000 hospital for chronic diseases on Welfare Island, New York City, have been made public by the department of hospitals. They include a series of four-story buildings, each extending almost all the way across the narrow island. In the center will be an administration building and laboratory built in the shape of a shallow H. Four Y-shaped structures will be built north and south of this, with the legs of three of the Y's joining with the next unit to the south.

The hospital will have a capacity of 1,500 beds, and is designed to provide a maximum of fresh air and sunlight to all patients. Pending its completion, a ninety-bed hospital in the Metropolitan group has been reconstructed and opened as a research laboratory for chronic diseases.

Also under construction on the

island are a nurses' home, with accommodations for 1,500 and a new central power plant. Both of these buildings are being erected with PWA funds, but funds for the construction of the chronic unit have been appropriated by the city.

Allegheny General Is Completed

The completion of Allegheny General Hospital, Pittsburgh, Pa., erected at a cost of approximately eight million dollars, was celebrated by a full week of observances beginning June 22. Monday evening saw the dedication of the new nurses' home. On Tuesday the hospital proper was opened for the inspection of those who contributed to its building fund. On Wednesday it was formally dedicated. Thursday it was host to physicians and surgeons, and Friday to the public. The hospital has been under construction since 1929, and was completed through a PWA loan of \$2,000,000.

New Building to Replace Old Hackensack Hospital

Work has started on a new building for the Hackensack Hospital, Hackensack, N. J., which will replace the present seventy-five-year-old structure which houses the children's and out-patients' department. The cost will be approximately \$207,000.

The new addition, which will be modern in every respect, is connected with the main building by corridors and will consist of six stories. The ground floor is designed for the out-patients' department and will have its own entrance. On the first floor there will be twenty ward beds for men and on the second floor twenty ward beds for women.

The third floor will provide additional space for maternity work, consisting of three delivery rooms, six labor rooms, an admitting room or preparation room, doctors' lounge, and nursery for premature babies. The floor of the main building, connecting with this department, will be altered for additional nurseries and ward beds. The fourth floor is planned for the children's department, the fifth floor for a pathologic laboratory, and a small operating room for tonsil work with eight beds for tonsil cases. Crow, Lewis & Wick, New York City, are the architects.

Hospital in Yukon Flooded

Flood conditions inflicted many hardships on the residents of Mayo, Yukon Territory, B. C., recently when the Stewart River overflowed its banks. Water swirled through the lower floor of the Mayo General Hospital but it was reported that all patients were being cared for on the upper floor of the building.

West Side Hospital to Rebuild

Plans for the development of the West Side Hospital and Dispensary, New York City, comprise a modern twelve-story hospital with a bed capacity of 200. The institution now has a bed capacity of twenty-seven. This marks an expansion program designed to meet the increased demands for hospitalization in an industrial area which is growing rapidly. The cost of constructing and equipping a building to meet these needs will entail approximately \$500,000. A modern obstetric and children's department is included in the layout, and dispensary service will be continued and extended. Last year the dispensary gave more than 30,000 treatments. Leading civic and welfare organizations on New York's west side are participating in this movement, which will mark a new era for the institution, which was first started sixty-four years ago.



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NEW BUILDING PROJECTS

SPRINGVILLE, CALIF.—Nurses' quarters and a kitchen are to be erected immediately at the Tulare-Kings County Joint Tuberculosis Hospital, the kitchen to cost \$13,700 and the home, \$7,350.

ELGIN, ILL.—A \$1,100,000 housing expansion program has been started at Elgin State Hospital that will include a \$150,000 employees' dormitory, a diagnostic center, a two-story \$350,000 hospital building, two \$125,000 infirmaries, one tuberculosis pavilion, a cottage for women patients and a staff house.

GLENN DALE, MD.—Four new wings, constructed at a cost of \$440,000 have been completed at the Children's Tuberculosis Sanatorium, doubling the capacity of the institution.

BOSTON, MASS.—A full fifty years after its foundation as the Boston Baptist Hospital by Dr. Francis Fremont Whittier, the New England Baptist Hospital has begun construction of a new building at a cost of \$500,000. This will contain nine operating rooms and 200 beds.

WEYMOUTH, MASS.—The sum of \$300,000, bequeathed to the town in 1925 by Laban Pratt, Boston, for the construction of a hospital in that section known as Weymouth Heights, has now grown to be \$460,000, and plans are being made for the immediate construction of the institution.

ST. CLOUD, MINN.—Late July will see the start of construction on two additions to the Veterans Administration Facility. The hospital is exclusively for the care of the mentally ill, and the units will add 328 beds, giving the institution a total capacity of about 1,100.

ST. LOUIS, Mo.—A hospital for the diagnosing and temporary treatment of the mentally ill, to be known as the Malcolm A. Bliss Psychopathic Institute, will be constructed this summer. The building, which is to cost \$1,500,000, will provide accommodations for 174 white patients and 38 Negro patients. It will be connected with the St. Louis City Hospital and serviced from that group.

SOMERVILLE, N. J.—The bed capacity of Somerset Hospital is to be increased from 86 to 114 by the building of an addition at a cost estimated between \$50,000 and \$60,000.

NORTHPORT, N. Y.—Five more buildings are being added to the Veterans Administration Facility at a cost of approximately \$1,500,000. They will provide beds for 800 patients, including parole and continued treatment patients. Plans to provide facilities for the tuberculous are being considered. The personnel of the hospital will be considerably enlarged, the to-

tal population of the institution jumping to 3,000.

BROOKLYN, N. Y.—Impressive ceremonies marked the ground breaking for a six-story wing for the Brooklyn Hebrew Home and Hospital for the Aged. The wing, which will permit the care of 250 more patients, will make the home the largest of its kind in this country, with a population of 750. It is to cost \$400,000.

NEW YORK CITY.—Plans are under way for the remodeling of the four-story brick office and dormitory of Kings County Hospital by the department of hospitals, at an estimated cost of \$20,000. . . Suitable exercises marked the laying of the cornerstone of the new Jewish Memorial Hospital on June 14. The new building, which is expected to be opened within six months, will cost more than \$1,250,000 and will accommodate about 210 patients.

SCHENECTADY, N. Y.—This month saw ground broken for the addition to the Eastern New York Orthopaedic Hospital-School, Inc., which will be used as a school house for all the physically handicapped children in Schenectady. The new building was made possible through the late Anna Electa Collins of Scotia who left the residue of her estate, amounting to over \$100,000, to the work for crippled children.

BLACK MOUNTAIN, N. C.—Work on the first unit of the three buildings that will make up the new state tuberculosis sanatorium near here will be started as soon as the weather permits. One building will house white tuberculous patients, another the administrative department of the institution, and the third colored tuberculous patients.

SILVERTON, ORE.—The first unit of a new hospital, to be built on the same location on which the old hospital now stands, is to be a one-story structure that will contain accommodations for twenty-five beds, a surgery, operating rooms, a maternity ward and an x-ray laboratory. The \$20,000 building will be soundproofed. The old building will probably be used for nurses' quarters when the new one is completed.

COATESVILLE, PA.—The Veterans Administration Facility is being increased in size by the construction of two buildings that will provide accommodations for 323 additional patients. At present there are 1,230 patients in the hospital. The new buildings are to cost \$550,000.

MEMPHIS, TENN.—The excavation is under way for a \$535,000 addition to the United States Marine Hospital.

Open Campaign for Funds to Enlarge Fairview Park

A campaign to raise \$225,000 to permit the enlargement of Fairview Park Hospital, Cleveland, has been inaugurated under the chairmanship of Albert J. Ferbert, a member of the hospital's advisory board. Visits to the institution have increased from 6,648 in 1930, to 20,475 in 1935. The dispensary of the hospital is the only one in the west district of the Cuyahoga County Relief Administration, a district which contains 4,500 families known to relief authorities.

The accident work at the hospital has doubled. In 1926, 916 accident cases were cared for; in 1935, there were 2,132. Fairview Park Hospital, which was built in 1908, is antedated in style, according to Mr. Ferbert, and so crowded that doctors and nurses are handicapped.

The campaign is to be conducted in two divisions: a special gifts committee which will solicit large gifts, and 400 volunteer workers who will canvass the city in a public appeal. Among the improvements contemplated are the extension of the x-ray department, the enlargement of the pathologic department, the addition of a physical therapy department, the removal of the dispensary from the basement of the nurses' home, the establishment of adequate quarters for the house staff, the improvement of quarters for accounting, admissions and records, and the installation of adequate kitchen facilities. The plans also include a new power plant and laundry at the extreme end of the grounds, the construction of a new unit, and the widening of the present structure.

Laboratory Cornerstone Laid

The cornerstone for the University of Illinois' \$1,457,000 medical and dental college laboratory building was laid by O. M. Karraker, president of the board of trustees of the university, in ceremonies on the morning of June 4. The building will be part of a group of medical buildings operated jointly by the university and the state department of public welfare.

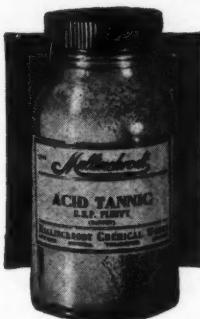
To Dedicate Oneonta Hospital

The formal dedication of the new tuberculosis hospital at Oneonta, N. Y., has been set for July 9 by Governor Herbert H. Lehman. The dedicatory program includes, besides the governor, Dr. Thomas Parran, Jr., surgeon general of the United States Public Health Service and Homer Folks, secretary, State Charities Aid Association. A bill providing that the new hospital be named for Mr. Folks has passed the legislature and is in the governor's hands for signature.

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Course of Training for Hospital Administrators to Be Held in Budapest

A formal course of training for hospital administrators has been conducted for the last three years by the Hungarian Clinic and Hospital Association. Recently the association has prepared a new and more elaborate outline for the course, which, if realized, will make it one of the most outstanding courses in this field in the world.

The course is to be held in Budapest and limited to Hungarian citizens with at least high school education. University graduates and C. P. A.'s will be favored. Not less than twenty and not over fifty students will be accepted in any one year. Prior to undertaking the course a twelve-month general training is required. During this period the student must work without salary for a certain time, alternating among the

more important departments of some public institution assigned by the board of directors of the course. Civil servants who have had such training in acceptable public institutions may be exempt from this requirement.

After the preliminary training, students enter a three-month course of lectures embracing the following subjects: hospital sanitation, organization and function of the health administration, administration and office organization, purchasing, hospital food service, upkeep of buildings, mechanics, electrification, heating techniques, textile industry course, leather and shoe industry course, and laundry course. The lecturers include leading government officials, university professors, architects, engineers, and other experts. Approximately 350 hours of lectures are included.

Cactuses Mark a Road to Health



Abandoned by the army, this CCC camp was purchased by the Pima County Welfare Board and pressed into service as a preventorium. Here young children, ranging in age from six to fourteen, and in number about 100, are receiving preventive care. It is located in the Tucson Mountains, sixteen miles from the city of Tucson, Ariz. Children are selected through recommendations made by their school nurses or the health department and after a physical examination.



Plan Group Hospitalization

Concerning itself principally with the organization of a group hospitalization plan and the formation of a state dietetic association, the South Carolina Hospital Association held its annual meeting in Columbia on June 16. Dr. A. E. Baker, director, Baker Memorial Sanatorium, Charleston; Charles H. Dabbs, superintendent, Tuomey Hospital, Sumter; Dr. J. M. Beeler, superintendent, Spartanburg General Hospital, Spartanburg, and the Rev. W. M. Whiteside, superintendent, South Carolina Baptist Hospital, were appointed to meet with four members of the South Carolina Medical Association and four laymen to put a group hospitalization plan in motion. Officers were all reelected to serve another year.

Eight-Hour Day for Employees

An eight-hour working day for employees of city hospitals has been established by the New York City officials. This will add about \$1,000,000 annually to the hospitals department budget, but the measure is felt imperative because of the fact that the physical and mental strain of the work and long hours mean the patient will not secure proper service. The bill does not affect administrative officers, medical and lay superintendents, physicians, interns, pathologists, roentgenologists, superintendents of nurses and ambulance drivers. It is believed that the 60 per cent labor turnover in city hospitals will be cut down when working conditions are improved.

On the Screen

"Behind Hospital Doors," a silent film done in color, was a feature of the film exhibition held at the National Conference on Visual Education in Chicago, June 22 to 25. The motion picture was made for the community chest by Louis J. Mathias, director of activities of the DeVilbiss High School, Toledo, Ohio.

Indian Hospital Program

Approximately 1,000 beds will be added to the government's hospital facilities for Indians when the present and planned building program is completed. An Indian unit at Ah-Gwah-Ching, Minn., and another on the Colville reservation, Washington, are now finished, and under construction at the present time are hospitals for the Zuni Indians in New Mexico, the Warm Springs group in Oregon, the Western Shoshone tribe in Nevada, and another in Yuma, Ariz. PWA appropriations have been set aside for hospital construction on the Blackfeet and Crow reservations in Montana.

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Hospital Service Analyzed at Meeting of New Jersey Administrators

A critical analysis of hospitals and the services they are rendering gave members of the New Jersey Hospital Association in convention at Atlantic City much to think about as they returned to their respective posts following the three-day meeting. Particularly successful were the Rev. John G. Martin, Hospital of St. Barnabas and for Women and Children, Newark, chairman of the committee, and his associates, Edgar C. Hayhow, Paterson General Hospital, Paterson, and F. Stanley Howe, Orange Memorial Hospital, Orange, in arranging a program providing a broad gauge view of hospital work in its relations to sociology, religion, mental hygiene, public health and economics.

In speaking from the standpoint of sociology, Dr. Francis Brown, associate professor of sociology, New York University, emphasized the fact that hospitals are failing to meet the needs of all classes, especially the great middle class. "This group cannot afford to pay full hospital rates for in-patient treatment," Doctor Brown said. "It can, however, afford to pay a little for out-patient treatment in the clinic. Yet in the clinic it meets the attitude of charity, with discourteous treatment and humiliation."

Consider the Whole Man

That the hospital should consider the whole man, including his mind and emotions, rather than merely his organs was one of the points made by Dr. Stephen P. Jewett, attending neuropsychiatrist at New York Medical College. "Its medical conception of the individual," said Doctor Jewett, "should be extended to include everything that affects the patient. Hospitals should have psychiatrists with neurologic training, or neurologists with psychiatric training, on their staffs. Their work then would be made more effective."

Dr. Haven Emerson, professor of public health, Columbia University, told the delegates that the hospital would serve its community better by caring for the sick than by trying to take on the duties of a health agency. The reason he gave is that the hospital personnel are not properly trained. "Hospitals are one specialty; public health services are another," he said.

"Hospitals too often fail to tell ministers of the patient's presence and to use the minister as a willing buffer between the patient's complaints and the institution, or to make use of religion in helping the patient combat his feeling of loneliness and frequently of bitterness," according to the Rev. Lloyd Foster, pastor of the

Calvary Methodist Episcopal Church of East Orange, who also expressed the belief that if religion is stripped of its traditionalism and sectarianism, it can help.

Hospital services from the standpoint of economics, described by William J. Ellis, commissioner, Department of Institutions and Agencies of New Jersey, completed the analysis.

Who Should Determine Policies?

Another subject advanced for consideration centered on who should carry the responsibility for determining hospital community policies. Contributing to this session were William A. Sumner, counsellor-at-law and president of Paterson General Hospital, Paterson, representing the trustee; Dr. Spencer T. Snedecor, vice president, New Jersey Medical Society, representing the physician, and Dr. C. W. Munger, Grasslands Hospital, Valhalla, N. Y., representing the administrator.

Doctor Sumner defined the hospital as a charity trust and expressed the feeling that its responsibility is vested in the board of managers. Doctor Snedecor outlined what the doctor sees behind the social trends of the day with the hospital as a point of focus. His profession, he stated, sees the hospital growing into a social service bureaucracy. "The public has grown to expect the inclusion of medical services in hospital service, particularly free hospital service. Hospitals have not helped in this respect. How many hospitals estimate the contribution of medical service?" he questioned, and added that the policies must be developed mutually by hospital administrators and the medical profession and submitted to the public for approval. Another point which Doctor Snedecor made was the need for accurate credit investigation and analysis of the financial standing of patients entering wards and clinics. The social service department is not the place for credit analysis, and social workers are not financial investigators, he believes. They should be divorced completely.

While the board of trustees is the ultimate tribunal, the board must safeguard the interests of the hospital by advising at all times with those individuals and agencies most interested, according to Doctor Munger. Policy determination should be a team affair. Doctor Munger also questioned the policy of boards who close their meetings to the superintendent. "It shows poor faith in the executive," he emphasized. "The good superintendent comes nearer than anyone else to a cross-cut angle on hospital problems,

but to enter opinions that are half-baked or impractical is a poor way to create confidence on the part of the board. It is sometimes advisable to use the services of an outside consultant," Doctor Munger added.

The discussion following these talks was led by Charles Neergaard, hospital consultant, New York City. In commenting on the papers, Mr. Neergaard expressed the belief that there is more need for leadership than ever before. "What the public needs but cannot pay for is one of the problems of modern times. The public looks to its hospitals for organized medical service. We must broaden the base of hospital support." Mr. Neergaard also referred to the need for constant publicity.

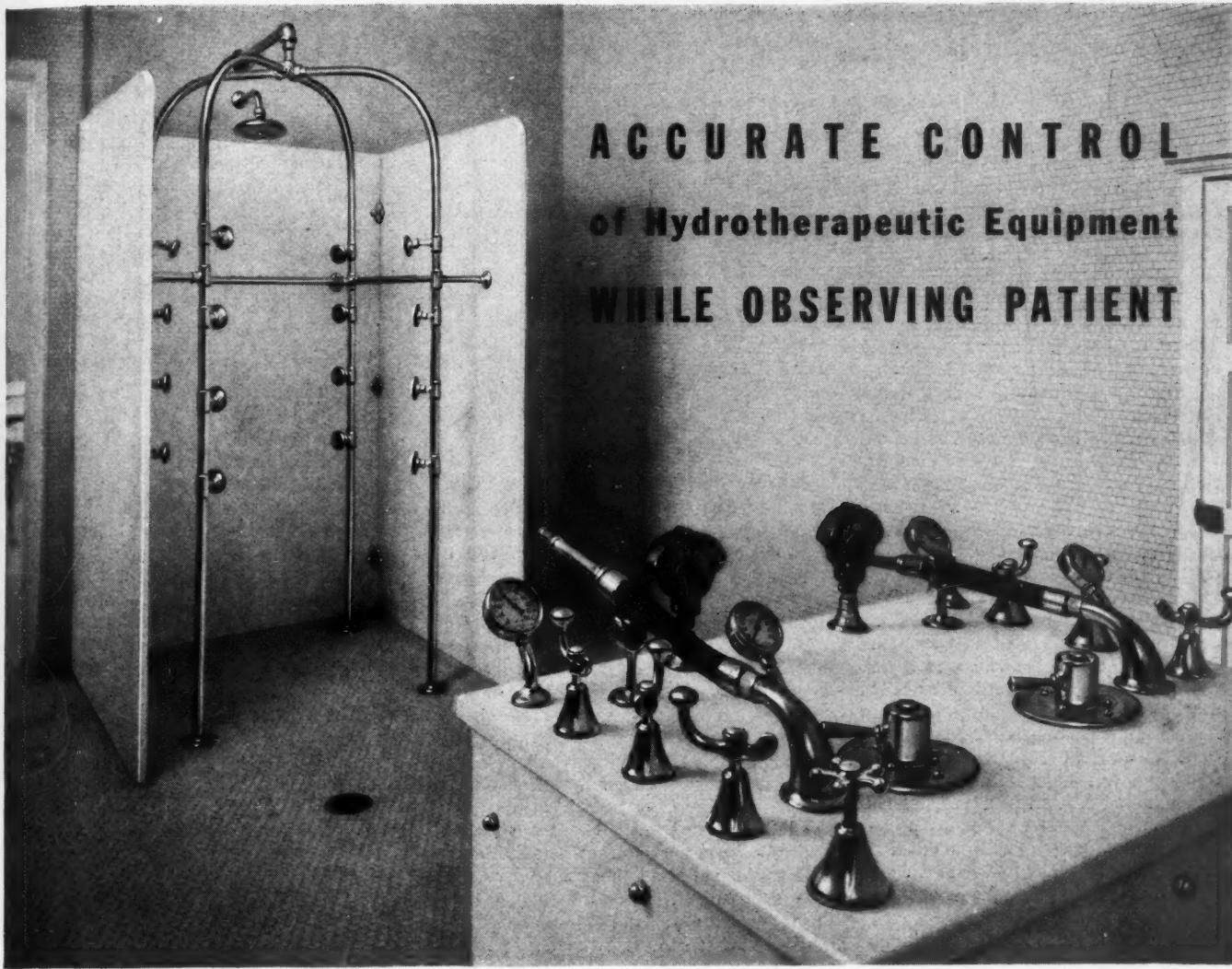
The final session of the meeting was devoted to a consideration of "The X-Ray Department" by Eugene G. Sensenback, president of the New Jersey Society of X-Ray Technicians; "The Hospital and the Doctor," by Dr. Thomas K. Lewis, chairman, medical practice committee, New Jersey Medical Society; "Why Just a Record Room?" by Verna M. Emery, Orange Memorial Hospital, Orange; "Characteristics Essential to a Good School of Nursing" by Laura Logan, representing the National League of Nursing Education, and "Food for Thought," by Elizabeth Rupert, dietitian, Hackensack Hospital, Hackensack.

The hospital association was joined in its meetings by the New Jersey Occupational Therapy Association. The largest number of exhibits of hospital equipment and supplies that were ever on display at the convention attracted much attention.

Edgar C. Hayhow takes office as president of the hospital group, succeeding Fred W. Heflinger, Mercer Hospital, Trenton. Other officers elected were James R. Mays, Elizabeth General Hospital, president-elect; Eleanor E. Hamilton, Presbyterian Hospital, Newark, vice president; Thomas J. Golden, Jersey City Medical Center, treasurer; John G. Martin, St. Barnabas Hospital, Newark, executive secretary.

Bloomingdale Changes Name

The name of its psychiatric hospital at White Plains, formerly known as Bloomingdale Hospital, has been changed by the Society of the New York Hospital to the New York Hospital, Westchester Division. This follows the appointment of Dr. Clarence O. Cheney, former director of the New York State Psychiatric Institute and Hospital to the position of medical director of the Westchester Division. Doctor Cheney was recently appointed professor of clinical psychiatry at Cornell University Medical College and consulting psychiatrist at New York Hospital, New York City.



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Michigan Administrators Sift Legislative Problems

Legislation was a leading topic at the twenty-first annual meeting of the Michigan Hospital Association held at Grand Rapids, May 28 and 29, in conjunction with the meetings of the Michigan Dietetic Association and the Michigan chapter of the Association of Record Librarians of North America. John Dunham, a Grand Rapids attorney, discussed the various theories involved in different states in decisions upholding nonliability of hospitals for negligence, with emphasis upon the Michigan situation, the decision in which relates to the trust fund theory.

In his discussion of hospital legislation, Walter F. Foster, a trustee of the Edward W. Sparrow Hospital, Lansing, covered the subjects of permissive legislation for group hospitalization, state laws for crippled and afflicted children, sales tax exemption, the desirability of a lien law, the desirability of the Ohio law creating a fund for the care of those injured on the highway, and the excessive requirements of the Michigan fire law. A. E. Hardgrove, assistant secretary of the American Hospital Association, amplified this discussion, referring to national legislation and the desirability of states providing for hospitalization in the old age pension laws.

Group hospitalization was discussed by Leon Harrington, president of the United Hospitals Committee, Inc., of Grand Rapids, and hospital councils by Dr. Stewart Hamilton, president of the Detroit District Hospital Council. Katherine Mitchell, president, American Dietetic Association, spoke on a new approach to problems in food administration. The new nursing curriculum was presented by Mabel E. Smith, Michigan Board of Registration for Nurses, as a guide and an interpretation of trends rather than an arbitrary standard.

At the administrators' round table, Robert G. Greve, secretary of the association, presented the results of a salary survey by questionnaire, relating particularly to the nursing field. Dr. D. M. Morrill, director, Blodgett Memorial Hospital, Grand Rapids, was elected president of the association, and Mr. Greve was reelected secretary.

Summer Courses for Supervisors

Summer courses in ward management, ward teaching and nursing school curriculum are being offered in the division of nursing education at the College of Saint Teresa, Winona, Minn. The course in ward management is planned for those who are concerned mainly with the direction and supervision of wards or departments, and deals with problems of personnel management, housekeeping, supplies and equipment, with refer-

ence to patient care and personnel education. Ward teaching is arranged for head nurses and supervisors concerned with ward teaching programs, and covers teaching methods, illustrative material and program organization. The principles and methods of curriculum construction, with reference to the suggestions for revision made by the National League of Nursing Education, make up the third course, in which opportunity for constructive work in planning courses of study and curricula will be given. Each course carries two semester points of credit.

Northeastern New York Meeting

The annual meeting of the Hospital Association of Northeastern New York was held in Saratoga Springs on June 4 at Skidmore College, under the presidency of Joseph J. Weber, superintendent, Vassar Brothers Hospital, Poughkeepsie. The two speakers of the day were Dr. Carl E. Smith, head of the department of psychology at Skidmore College, whose subject was the psychology of medicine, and Agnes Gelinas, who discussed trends in nursing education. Miss M. M. Sutherland, superintendent, Mary McClellan Hospital, Cambridge, was elected president of the association; Jessie P. Allan, superintendent, Kingston Hospital, Kingston, was chosen vice-president, and Rose Q. Strait, Glens Falls Hospital, Glens Falls, was made secretary-treasurer. The next meeting of the association will be held in September.

Canadian Dietitians Meet

The first annual meeting of the Canadian Dietetic Association was held in Toronto, Ont., May 22 and 23, and was attended by 250 dietitians, from as far west as Alberta and as far east as New Brunswick. Ruth M. Park, chief dietitian, Montreal General Hospital, Montreal, Que., was elected president, and Kathleen Burns, chief dietitian, Hospital for Sick Children, Toronto, Ont., president-elect.

Librarians Elect Officers

The Minnesota State Record Librarians Association elected Sister M. Patricia, superintendent, St. Mary's Hospital, Duluth, president at its recent convention. Mrs. Norma Swanson, St. John's Hospital, Red Wing, was chosen president-elect; Virginia Kellogg, Ancker Hospital, St. Paul, vice-president; Francis Nemec, Glen Lake Sanatorium, Oak Terrace, secretary, and Helen Tonneson, St. Lucas Evangelical Deaconess Hospital, Faribault, treasurer.

Catholic Hospital Group Reelects Its Officers

Over a thousand persons attended the twenty-first annual convention of the Catholic Hospital Association of the United States and Canada in Baltimore, June 15 to 19, to listen to discussions of maternity centers, nursing schools and social service problems.

Dr. Frederick W. Rice, New York City, representing the Federated Catholic Physicians' Guild, advocated the development of maternity centers with combined hospital and home services, that would be teaching institutions, capable of such extension as to ensure adequate protection for all women during pregnancy and childbirth.

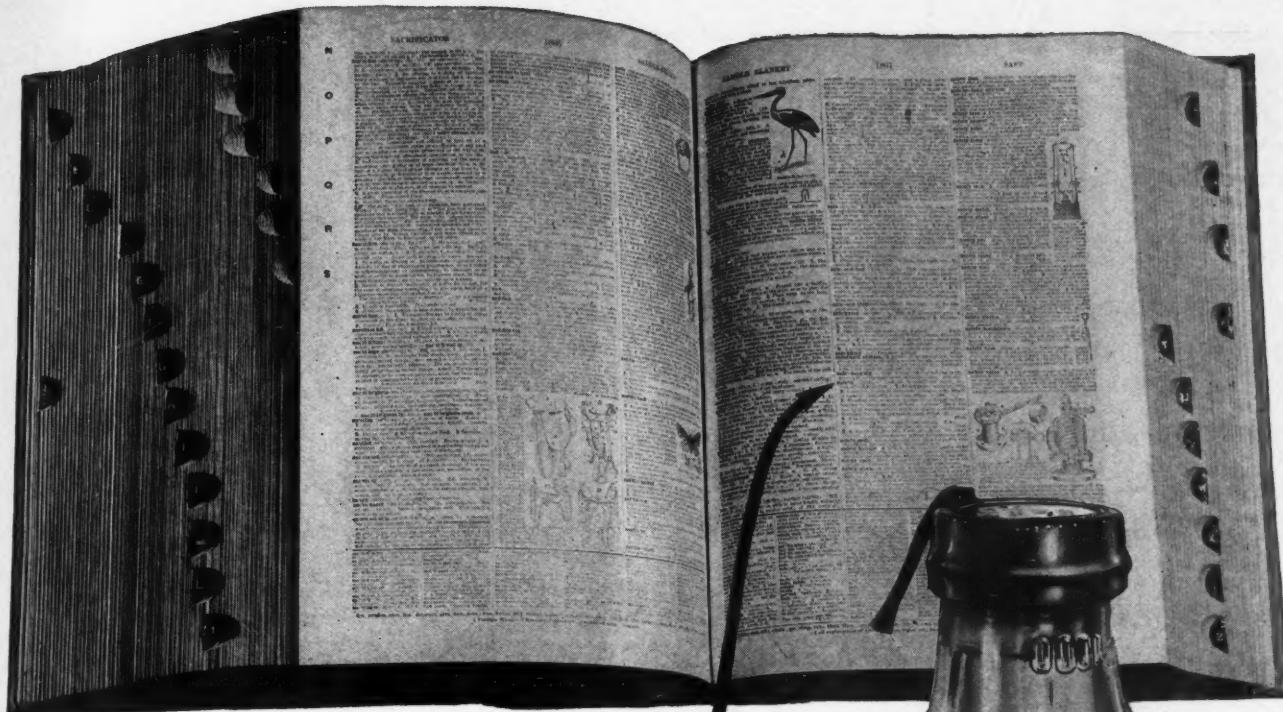
With the exception of two members of the executive board, the entire roster of officers was reelected. These include the Rev. Alphonse M. Schwitalla, dean of the medical school, St. Louis University, president; Sister Helen Jarrell, dean of the school of nursing, St. Bernard's Hospital, Chicago, secretary, and Sister M. Irene, St. Mary's Hospital, St. Louis, treasurer.

Modernization Discussed

A varied program was presented at the regular meeting of the Connecticut Hospital Association held at St. Francis Hospital, Hartford, Conn. Particular interest was aroused in the comments made by Edwin A. Salmon, architect, on the modernization of hospital plants. This was followed by a round table discussion led by Dr. Allan Craig, superintendent of Charlotte Hungerford Hospital, Torrington. During the morning the formula room of St. Francis Hospital was the scene of a demonstration conducted by Sister Catherine Teresa Roders. Among the other speakers was Commissioner of Motor Vehicles Michael A. Connor, who described the promotion of safety on the highway.

Coming Meetings

- Institute for Hospital Administrators.
Next meeting, Chicago, Sept. 9-23.
- American College of Hospital Administrators.
Next meeting, Cleveland, Sept. 26-28.
- American Protestant Hospital Association.
Next meeting, Cleveland, Sept. 26-28.
- American Hospital Association.
Next meeting, Cleveland, Sept. 28-Oct. 2.
- National Association of Nurse Anesthetists.
Next meeting, Cleveland, Sept. 29-Oct. 1.
- Children's Hospital Association.
Next meeting, Cleveland, Sept. 30-Oct. 1.
- American Dietetic Association.
Next meeting, Boston, Oct. 11-16.
- American College of Surgeons.
Next meeting, Philadelphia, Oct. 19-23.
- Ontario Hospital Association.
Next meeting, Toronto, Oct. 19-23.
- American Public Health Association.
Next meeting, New Orleans, Oct. 20-23



safetY (sāf'tī), n. [ME. *sauſte*, *savele*, OF. *sauſtē*, *sauve*, *salvetē*, F. *saufetē*.]

Freedom from whatever exposes one to danger or from liability to cause danger or harm; safeness; hence, the quality of making safe or secure, or of giving confidence, justifying trust, insuring against harm or loss, etc.

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NAMES IN THE NEWS...

DR. THOMAS HOWELL, superintendent, New York Hospital, New York City, has severed his association with that institution to assume charge of Overlook Hospital, Summit, N. J. He will succeed **ELSIE SLORAH**, whose resignation becomes effective July 15. Doctor Howell was president of the American Hospital Association in 1914.

DR. ALQUIN J. DAVIS, superintendent of the Nassau County Sanatorium, Farmingdale, N. Y., died after an illness of two weeks. Doctor Davis was president of the New York State Association of Superintendents and Managers of Tuberculosis Sanatoria and had been in charge of the Nassau County Sanatorium since 1919.

DR. JAMES TATE MASON, president of the American Medical Association, died at Seattle, Wash., on June 20. He was seriously ill at the time he was elected to head the association, and his death occurred in his own hospital, the Virginia Mason. Doctor Mason served as superintendent of the county hospital at Seattle from 1916 to 1920, and as surgeon-in-chief and superintendent of the Mason clinic and the Virginia Mason Hospital from 1920 on.

DR. JOHN SRAIL has been named superintendent of Clark County Tuberculosis Sanatorium, Springfield, Ohio, to succeed **DR. J. D. THOMAS**.

MARJORIE DAVIS, assistant superintendent of nurses at Johns Hopkins Hospital, Baltimore, for seven years, and for the last three superintendent of nurses and principal of the training school at New York Post-Graduate Medical School and Hospital, New York City, has been appointed superintendent of nurses and principal of the nurses' training school at the New England Deaconess Hospital, Boston.

FRANCES FULLER is the new superintendent of Beaver Valley Hospital, Martin, Ky.

DR. GEORGE REESE, superintendent, Shamokin State Hospital, Shamokin, Pa., has announced his resignation following a salary cut from \$10,000 to \$8,000. His resignation was dated June 1, but he will remain at the institution until his successor has been appointed.

DR. HENRY BRYAN BRACKIN, a practicing psychiatrist with a background of training in several institutions for the mentally ill, has been appointed superintendent of the Davidson County Asylum and Hospital, Nashville, Tenn. He succeeds the late **DR.**

WILLIAM WESLEY CORE who had headed the institution for thirty-six years. Doctor Core died on June 3 at his residence on the hospital grounds. He was seventy-six years of age.

HAROLD BAKER, general manager of San Luis Obispo General Hospital, San Luis Obispo, Calif., has resigned to accept the office of superintendent of Wesley Hospital, Wichita, Kan.

JAMES R. MAYS, superintendent of Elizabeth General Hospital, Elizabeth, N. J., has been appointed superintendent of Abington Memorial Hospital, Abington, Pa., to succeed **JOHN L. BURGAN**, who is resigning after more than ten years as superintendent. Mr. Mays recently directed an extensive survey of the Abington hospital and made recommendations that the trustees want him to put into effect. He will be succeeded at Elizabeth by **W. MALCOLM MACLEOD**.

MRS. FREDA CONSIGNY has been appointed superintendent of the Pocatello General Hospital, Pocatello, Idaho, to succeed **MRS. M. S. RASMUSON**.

DR. J. W. HENDERSON has been appointed superintendent of Cowlitz General Hospital, Longview, Wash., following the culmination of a business transaction which placed the supervision of the hospital in the hands of the Cowlitz County Medical Bureau.

DONALD S. SMITH, assistant superintendent of the Minneapolis General Hospital, Minneapolis, Minn., is to become superintendent of the Mary Hitchcock Memorial Hospital, Hanover, N. H., to succeed **JAMES A. HAMILTON**.

DR. KENNETH G. BULLEY, assistant superintendent of the Wisconsin State Sanatorium, Statesan, has been appointed superintendent of the Kane County Spring Brook Sanitarium. **DR. ELMER M. THOMAS** has been acting director of the sanitarium since the death of **DR. IMAS P. RICE** in April.

DR. HARLEY A. HAYNES, director of University Hospital, Ann Arbor, Mich., has been appointed acting director of State Psychopathic Hospital, Ann Arbor.

CLARA DUTTON NOYES, director of the American Red Cross nursing service, died suddenly when stricken while driving her car in Washington, D. C. Miss Noyes was assistant director of the nursing service during the World War, and was one time superintendent of nurses at Bellevue Hospital,

New York City. She had received, at various times, the Florence Nightingale award and decorations from the French, Latvian, Polish and Costa Rican governments.

ASSISTANT SURGEON GENERAL LEWIS R. THOMPSON, chief of the division of scientific research, has been put in charge of the newly established office of public health education.

E. I. ERICKSON, superintendent, Augustana Hospital, was elected president of the Chicago Hospital Association at the annual meeting on May 27. **C. T. JOHNSON**, Washington Boulevard Hospital, was reelected secretary-treasurer. In taking office Mr. Erickson gave notice of his intention of working closely with the Chicago Hospital Council, of whose board of directors he is a member.

DR. ANTHONY J. SPANG is the new superintendent of the St. Louis County Dispensary, Buhl, Minn., succeeding **DR. OLIVER E. SARFF**.

DR. HUGH W. WILLIAMS, assistant superintendent of Oakland County Tuberculosis Sanatorium, has been named superintendent of Oakland County Infirmary, Pontiac, Mich.

LEONIE LECLERC has been appointed supervisor of nurses at Rockaway Beach Hospital, Rockaway Beach, N. Y.

CLINTON F. SMITH, executive secretary, Iowa University Hospitals, Iowa City, Iowa, is resigning from that position to accept the superintendency of Grant Hospital, Chicago. He will assume his new duties August 1. Before going to Iowa City Mr. Smith was for nine years superintendent of Allen Memorial Hospital, Waterloo, Iowa.

DR. A. E. HUBBARD, one time superintendent of Peoria Municipal Tuberculosis Sanitarium, but more recently practicing privately at Peoria, Ill., has been appointed superintendent of Sunnyside Sanatorium, Indianapolis, where he succeeds **DR. WILLIAM McQUEEN**.

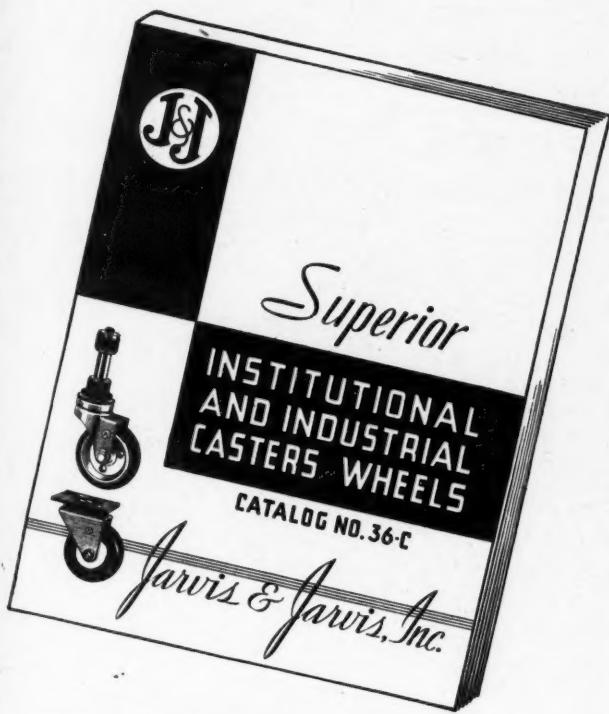
EDITH CARR, Mercy Hospital, Merced, Calif., has been named superintendent of Hazel Hawkins Memorial Hospital, Hollister, Calif., to succeed **DOROTHY C. DREW**.

JANE CRAVER is the new superintendent of Clinton County Hospital, Frankfort, Ind.

In Search of an Heiress

Lillian Myrtle Harter, nee Tompkins, who was employed at the Middletown State Homeopathic Hospital, Middletown, N. Y., in 1927, is now the object of a search being conducted by Cromwell and Company, Boston, Mass., who wish to notify her that she is entitled to an inheritance.

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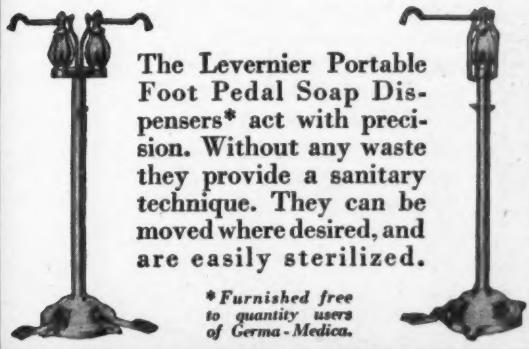
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LITERATURE in ABSTRACT • •

Conducted by E. M. Bluestone, M.D.

Use of the Blue Bath

When a load of white work is soured, what is the best position of the bluing operation with respect to the sour?*

Formulas used in different laundries show a marked variation in the position of the blue bath with respect to the souring operation, due to the operator's personal preference or conditions occurring in the wash wheel.

Where uneven bluing occurs when the blue is added directly to the sour bath, it is common practice to add one or even two rinses between the sour and the blue. The real effect of these rinses is to rinse out a considerable proportion of the sour present at the end of the souring operation. This reduction of the acidity of the blue bath reduces the tendency of the blue to "exhaust" on to the fabric and at the same time produces more nearly uniform souring conditions in various loads.

Both of these factors tend to increase the uniformity of the bluing, although the reduction of the acidity will usually mean that more bluing must be added to the wheel to produce the desired bluing conditions.

*Laundry Questions and Answers. Starchroom Laundry J. 43: 70 (May 15) 1936. Abstracted by Louise Large.

Adequate Diets at a Minimum Cost

One of the contributions of the depression has been a better understanding of an adequate diet and how it can be secured on a limited budget.* Adequate diets have been maintained on as little as \$1.10 to \$1.65 a person for a week when the food is intelligently planned, purchased, and prepared. The first step is the consideration of essential foods and their ranking.

Milk is placed at the top of the list and the nutritionist's slogan is "one quart of milk a day for every child and under-nourished adult, and one pint a day for the average adult." Second in importance are cereals because they are inexpensive sources of energy producing foodstuff. Whole grain cereals are especially stressed since their content of minerals and vitamins is high. Next on the list are the less perishable fruits and vegetables such as carrots, potatoes, onions and turnips. Vitamin C from canned tomatoes is an inexpensive substitute for orange juice. The

fruits suggested are bananas and dried fruits. Meat, eggs, cheese, fat and sugar are bought sparingly since they are expensive and fat and sugar have little to add nutritionally.

On this basis a so-called minimum cost adequate diet is established which provides the average requirements of an individual with a fair margin of safety. Seven studies were made in various sections of the country concerning the nutritive value of food purchased by low income and relief families. It was also noted how much of the budget was spent for the groups of food as given above. It was found that only 44 per cent of the absolute minimum of milk was purchased. The next most striking deficiency was canned fruits and vegetables, with the exception of canned tomatoes and citrus fruits. The cereals, instead of increasing in amount as they should on a low cost dietary, were decreased below the minimum recommended. Dried peas and beans, which are good sources of protein and minerals, were also shunned. Only 70 per cent of the amount of dried fruits specified was purchased. Excessive fat, sugar and coffee were used.

These studies of the diets of relief and low income families show clearly the need for a great deal more popular education concerning the importance of the protective foods and how nutritional requirements can be maintained at low cost.

*Morgan, Harriet: Food Lessons From the Depression, Trained Nurse and Hosp. Rev. 96: 254 (Mar.) 1936. Abstracted by Ruth J. Marek.

Heat Transmission and Insulated Walls

In order to ascertain the magnitude of the effects of wind, rain, snow, sleet, sunshine, cloudy or clear nights, the following tests were made upon four different types of walls.* Four test houses, identical save for insulation and designated as "U," "C," "B" and "M," were placed 40 feet apart on the roof of an unheated factory building at Waverley, Mass. Each house was an 8-foot cube. The wind exposure was equal for all four.

The houses were exposed to normal New England weather for a period of forty days. During this period, observations were made of the temperature at various parts of the walls as well as that of the air inside and out. The heat input was measured and the weather observed at regular intervals.

Since this investigation related to the walls only, the roof and floor of each house were insulated with four inches of corkboard making the loss of heat through these sections small compared with the loss through the walls. The outer surface of all the walls was given a coat of flat white paint for identical conditions. The walls were of frame construction. The insulation was in all cases commercial material and applied in the usual fashion by competent workmen. Care was taken to seal all joints, particularly in the cork floor where a two-foot square opening was made to provide access to the house in case repairs were necessary.

Each house was heated electrically by two resistance heating units, one of which was thermostatically controlled, the other hand operated. In cold weather both heating units were used, but in mild weather the hand operated unit was open circuited, ensuring more uniform temperature inside the house.

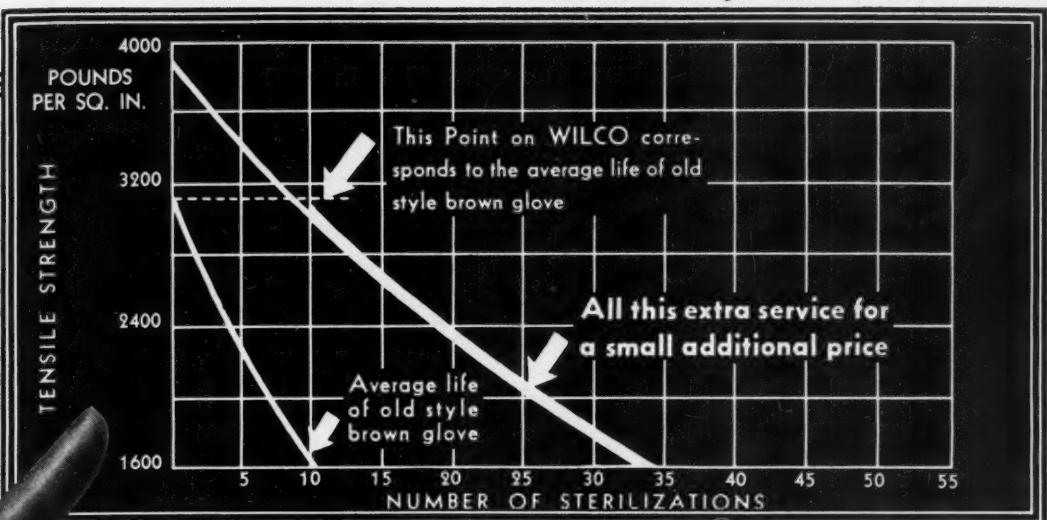
All temperatures were measured by means of small copper-constantan thermo-couples which could be connected to an indicating potentiometer or to a 12-point recording potentiometer.

A continuous record of temperature and time of sunshine was the only weather observation made at Waverley. The U. S. Weather Bureau at Boston supplied all information regarding wind velocities, rain, snow, cloudiness and relative humidity.

The average coefficients of heat transmission through the four types of walls during forty days of winter and spring weather are as follows: "U" (uninsulated frame construction) 0.229, "C" (insulated with $\frac{1}{8}$ -inch fiber board) 0.166, "B" (insulated with 1-inch wood wool) 0.128, and "M" (insulated with 3-inch mineral wool) 0.088.

The average weather conditions for the whole test were as follows: temperature outside air, 34.6° F.; wind velocity, 8.75 miles per hour; relative humidity, 63 per cent; cloudiness, 50 per cent; total hours of sunshine, 305; maximum outdoor temperature, 56° F.; minimum outdoor temperature, 2° F.; maximum wind velocity, 21 miles per hour; minimum wind velocity, 2 miles per hour; total precipitation, 4.68 inches.

The effect of wind velocity on the heat transmission of walls is difficult to estimate accurately but the following conclusions will give one the order of magnitude of the change due to wind velocity. If bright sunshine is falling on the house, doubling the wind velocity causes a rise in the coefficient of about 15 per cent; if the sky is cloudy, doubling the wind velocity increases the coefficient about 10 per cent. On a clear, cold night doubling the wind velocity decreases the coefficient of the insulated houses



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slightly since the wall surface is brought more nearly to the same temperature as the outside air.

Heavy rain increases the heat losses about 10 per cent with normal wind velocities, but there is no appreciable effect due to snow.

On a cloudy night the heat loss is approximately 15 per cent less than on a clear night at low wind velocities.

In conclusion, it should be noted that weather conditions affect the heat transmission through uninsulated walls more than through insulated structures, but they have an appreciable effect on the best insulated walls. The sun is perhaps the most important single factor with wind velocity a close second.

*Wilkes, Gordon B., and Bemis, Alan C.: Effect of Weather on the Heat Transmission of Walls, *Domestic Engineering* 147: 73 (Feb.) 1936.

Medical Care in the Home

Here are described the practices established in a number of cities for the home care of the sick who cannot afford the services of a private physician.* While there is no unified plan in effect, it has been generally realized that the burden of caring for these people has become too great to be shouldered by private agencies. Federal funds were first allocated in September, 1933, for this purpose, under FERA Rules and Regulations No. 7, but this has not been a permanent arrangement.

The author gives a detailed report of a study made by the American Public Welfare Association of the way ten cities attacked this problem, especially in relation to home visits made by doctors to the indigent sick. Each city carried out a plan suitable to its particular need.

Boston, Buffalo, N. Y., Minneapolis, Denver and Baltimore made no use of federal funds as each was able to expand its existing resources to meet the emergency. In Boston home care has always been provided by privately supported agencies, the Boston Dispensary supplying almost two-thirds of this service. About 60 per cent of the home visits are made to public relief clients. Home visits in Buffalo are made through the Buffalo City Hospital by part-time salaried physicians and supervised house staff members. In Minneapolis home visits are provided through the Minneapolis General Hospital by salaried resident city physicians. Denver has continued to conduct its home visiting service through the board of health in cooperation with the Denver Hospital. The Baltimore Department of Public Welfare has a list of private physicians who are called in emergency.

New Orleans, New York City, Chicago, Pittsburgh and San Francisco have had to avail themselves of FERA

No. 7. New Orleans has established home care for the first time with federal funds, only using private physicians on a fee basis. In New York City, this service is given by private physicians from a panel of 4,700, from whom the patient chooses. Only those on home relief or WPA projects are eligible for this service. Chicago has always had a county doctor system for the home care of the indigent and supplementation by a panel of private physicians has been made possible through federal and state funds. Pittsburgh has continued the use of part-time salaried city physicians and has supplemented this service by establishing a panel of private physicians, paid on the fee basis, for the care of its relief clients. San Francisco has established a central medical bureau with a permanent part-time salaried medical director and a limited staff of physicians who are assigned to home visits. The city physician makes visits to families not on relief.

It is apparent that all of these communities are aware of the need for a more coordinated program to cope with this problem.

*Ross, Mary: Patients Without Incomes, Survey, 72:102 (Apr.) 1936. Abstracted by Minnie Smith.

Cleansing and Checking a Boiler Room

Probably the cardinal virtue in any boiler room is cleanliness, and the things to be kept clean are not only those easily visible, but those that are hidden from the casual observer and must be looked for.*

Flues must be kept clean. Improved technique in oil burner design is making possible the use of steadily increasing viscosities. Some soot will result. Here elbow grease or modern flue cleaning equipment must supplement the oil nozzles.

Fouled oil strainers do not directly affect economy of operation, except that power costs for pumping will increase somewhat as the pressure drop through the strainers increases because of fouling. Duplicate oil strainers facilitate cleaning as they permit continued operation. A good method is to wash the strainer mesh in gasoline which will remove most sediment, whisking off the surplus gasoline that clings to the mesh.

Fouled burner nozzles and tips are sometimes manifested by smoky fires or diminished steam pressure, but such indications usually occur only when the condition is aggravated. Regular inspection and cleaning are recommended. Here, too, spare nozzles and tips are convenient.

The fouling of fans and blower wheels is gradual. The results are poorer atomization and lowered effi-

ciency. These devices are wholly enclosed in casings, but little time or effort is required to pull the blower housing apart at regular intervals for inspection and cleaning.

As a fuel oil heater becomes dirty it heats less oil through a smaller temperature rise. The sediment deposits may be partly due to the fuel oil itself, but they are caused largely by the action of heat on the oil. The electric heater, which sometimes is used to make up temperature deficiency in the oil after it has been steam heated, will eventually also become fouled. Then the preheating of the fuel will be inadequate, and high viscosity oil will begin to reach the nozzles causing loss of efficiency. If straight tube heaters with external oil and steam connections are used, the heads may be removed and the tubes rodded without breaking either oil or steam connections.

Sediment deposits should be pumped from the storage tank at regular intervals.

Checking is probably as important as cleaning. The check should have two objectives: to assure that safety devices are in working order and to ascertain that elements affecting combustion efficiency are under control.

Periodic blow-downs should be made to keep the float chambers clear of sediment and scale. Immediately after installation and at, say, six-month intervals, float devices should be tested by lowering the water line to see that the desired operation is performed by the float at the correct water level.

The electrical function of a float switch is usually accomplished through the medium of a mercury tube which occasionally develops slight cracks in the glass. Only an actual test of the device by dropping the water level will reveal this condition. If the electric switch is the open contact type, testing is necessary to guard against pitted contacts. Pressurestats should also be tested, being sure that the boiler water is not forced out through return connections. These tests should be made once a month.

Safety devices almost always operate through intermediate relays that must in turn break the main electrical circuit. At times these relays stick in a closed position and thus fail to stop the burner though the cutout itself has functioned properly. Always test these safety features when the entire plant is running normally, for only in this manner does the test prove positively that the burner will stop.

With warm air furnaces the main electrical supply for the oil burners should be taken directly from the lower side of the ventilating fan switch. This assures that the burners cannot start until the fan is blowing air over the furnaces, a safeguard that should be adopted even if there are also duct limit switches.

★ THE SPIRIT OF THE NATION ★



One hundred and thirty-eight years ago a Scotchman named William Ross

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James Ross little dreamed when he founded his distilling plant that in two generations there would be an enormous demand for industrial alcohol. But that such a demand arose is characteristic of the growth of American industry.

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ducers, but was built up by the inventiveness of the scientists and by international as well as American genius expressing itself in many ways. The impetus to produce finer grades of alcohol for special purposes was likewise set in motion by the needs of users.

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Combustion safety switches are of two general types—manual and automatic. About the only maintenance required on this equipment is that the bi-metal helix or disc which is responsive to temperature changes must be kept clean of soot or carbon deposit. Electrical features are subject to the comments already made in connection with low water and high pressure.

The automatic combustion switch also controls the ignition timing and must be located and regulated so that it does not cut off the ignition too soon but delays this until the oil fire is established sufficiently to maintain itself.

Stack switches must be kept clean, for they are intended primarily to prevent oil flooding of the boiler or pumping of oil into the firebox when combustion is not occurring. A fire extinguisher should certainly be on hand and should be checked regularly.

Oil vapor in a storage tank is a hazard. All tanks are of course vented to atmosphere, and so the oil vapor above the liquid oil is mixed with air. When there are steam coils in the tank the danger is greater. Some means should be available against emergencies. Steam smothering lines are the most logical as they extinguish an oil fire quickly.

*Unger, Paul R., and Steiner, Kalman: How to Operate Oil Fired Heating Plants Efficiently, Heating, Piping, and Air Conditioning 8: 255 (May) 1936. Abstracted by Louise Large.

Comparative Maintenance Costs in North and South

The average operating costs per square foot for ten office buildings in Southern cities and for twenty-seven buildings in Philadelphia come to 45.7 cents for the Southern cities and 58.9 cents for Philadelphia.* The figures for Philadelphia were compiled by T. F. Egan, Jr., for the Building Owners and Managers Association of Philadelphia.

Total fixed charges including insurance, taxes and depreciation range from \$0.347 to \$0.75 in the South with an average of \$0.557, while the Philadelphia average is \$0.968. Total charges of every character show a range of \$0.896 to \$1.285 in the South. The figure for Philadelphia is \$1.635. The average total cost of operating the Southern office buildings comes to \$1.087 per square foot.

Cleaning is an important item, representing \$0.107 per square foot in the South and \$0.178 in Philadelphia. Since labor represents the major portion of cleaning costs, the problem is to get value received for every dollar paid and the only way to do this is to have efficient supervision. As a rule the larger buildings have the smaller cleaning cost per foot.

The cost of the electric system varies little, amounting to \$0.069 in the

Southern cities and \$0.063 in Philadelphia. Nor is there much variation in the cost of maintenance of equipment, plumbing and water which averages \$0.024 in the South and \$0.011 in Philadelphia. The highest heating and ventilating cost of \$0.073 represents the northernmost city and compares only fairly with the Philadelphia figure of \$0.079. All of the other Southern buildings are naturally lower, the average being \$0.038.

In considering elevator costs the average for the Southern cities is \$0.077 as against Philadelphia's \$0.125. A building superintendent who is skilled in the knowledge of elevators is an extremely valuable man.

The insurance figures are fairly close together in the two territories—for the South \$0.025 and for Philadelphia \$0.026.

Depreciation is the largest single item of expense and the least considered. It requires \$0.317 per square foot to cover depreciation charges on the Southern buildings, and \$0.51 per square foot in Philadelphia, but owners and managers seldom give thought to this item when making operating statements. They overlook the fact that their physical asset is wasting away, becoming in need of alterations, renovation and installation of new equipment. Reserve funds should be set aside out of the yearly revenue to provide for certain contingencies so that owners will not be rudely awakened to the need for installing new elevators or air conditioning or for complete modernization.

*Camp, E. A.: Operating Costs in the South, Bldg. and Bldg. Manage., 36: 32 (Feb.) 1936.

Success of Thermostatic Control Valves

So well have 1,500 thermostatic control valves functioned on radiators in the executive offices of the New York Life Insurance Co., New York City, over a period of four years, that about 1,000 more were installed as a modernization project on other radiators in the building last summer.* Practically every radiator in this building is now thermostatically operated under direct control. Test data covering the history of the initial 1,500 regulators are still incomplete but it is known that more than 10 per cent was saved in fuel annually.

This building has its own power plant. It uses barley anthracite coal fired by chain grate stokers. Altogether some 125 million pounds of steam are generated yearly. The first fifteen floors of the building are equipped with indirect as well as direct heating, the fans being operated for air circulation in summer and for heating in winter.

*Thermostatic Radiator Valves Modernize Insurance Building, Heat. & Ventil. 33:50 (May) 1936. Abstracted by Louise Large.

Insurance Plans for Employees

Some commendable phases of group insurance and provision for pensions to hospital employees are outlined,* in addition to coverage in the event of accidents occurring outside of the institution which, of course, workmen's compensation does not include.

The group life insurance plan obligates the hospital to part payment of the premiums. The employee pays \$7.20 per thousand per annum, and the hospital pays slightly less. The average policy, it appears, is written in the amount of \$1,000.

A total disability clause, which many insurance companies have abandoned since the depression, is also in force.

Group accident and sickness insurance is optional. The employee pays the full amount of the premium, inasmuch as the hospital independently carries compensation insurance for occupational injuries. The maximum amount written under this policy is for 66½ per cent of the average earnings, in no case is it more than \$25 a week.

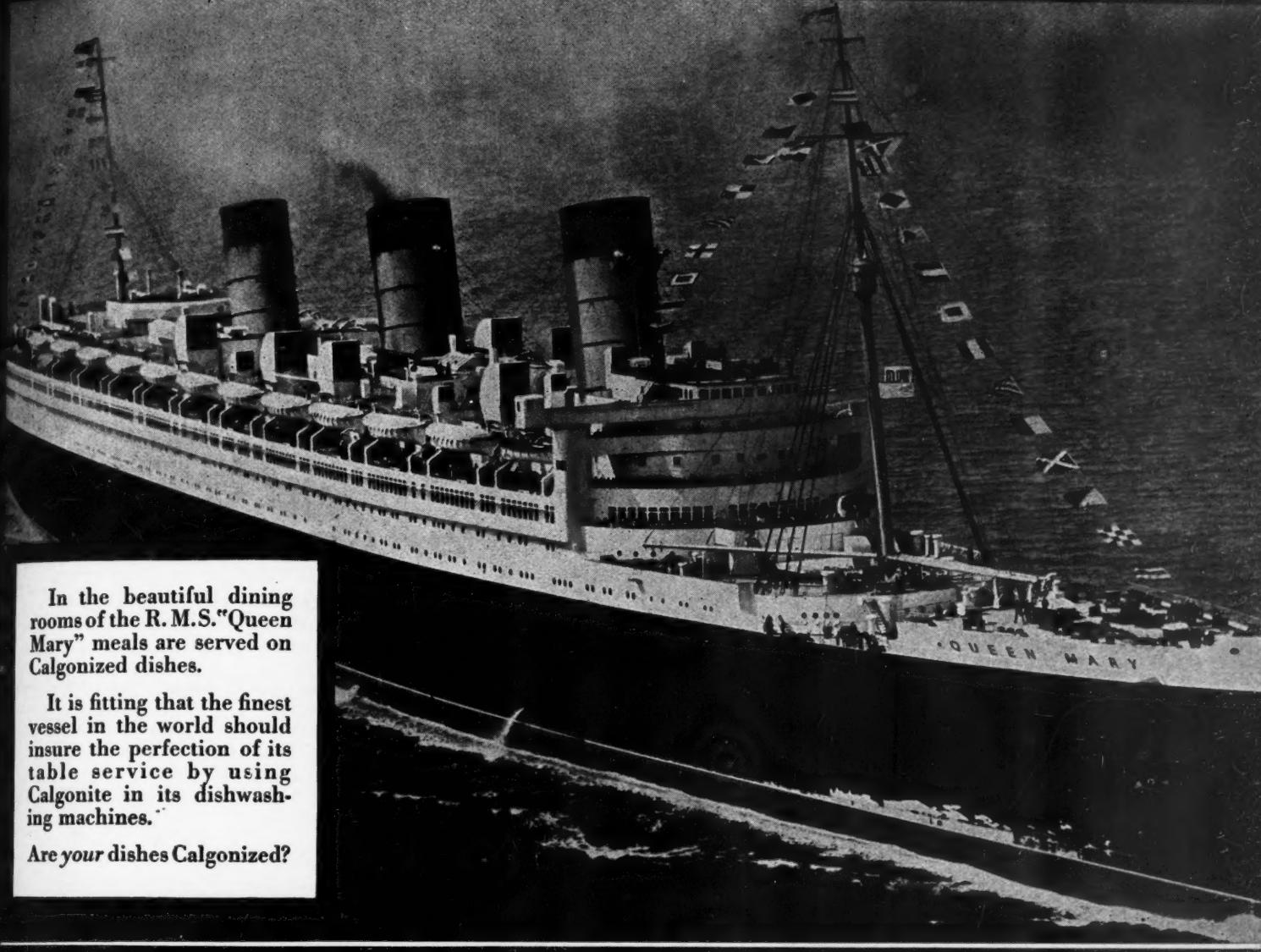
The retirement pension system offers the employee an opportunity to obtain double the amount of protection he may be able to obtain as an individual. This, of course, is primarily accounted for by the fact that the hospital pays an amount equal to the employee's contribution. The normal retirement age is sixty-five for men and sixty for women. The plan provides for half pay at retirement age; the contributions of the individuals vary according to respective ages and sex. Changes in salary would proportionately affect the amount of the pension. Provision is made for the return of premiums with accrued dividends in the event of death before retirement, also for withdrawal from service.

Various other forms of benefits, well known to those of us who carry insurance in old line insurance companies, may be written into these contracts for additional small premiums.

The hospital reserves the right to alter or discontinue any or all of these plans at any time, though it is pointed out that such action on the part of the institution is unlikely. In such an event, however, certain options are offered, but employees who had already retired would in no way be affected by the arrangement.

The pension plan is excellent but for the fact, as the author points out, the older employees in hospital service are not provided for. Another problem that employees may face is their inability to continue their financial obligations under these policies in the event of substantial salary cuts.

*Stephens, George F., One Hospital's Experience in Voluntary Types of Insurance and Pensions, Hospitals, March, 1936. Abstracted by Jacob Goodfriend.



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BOOKS ON REVIEW

PUBLIC HEALTH NURSING. By Mary Sewall Gardner, R.N., A.M. 3rd ed. rev. New York City: The Macmillan Company, 1936. \$3.00.

Miss Gardner first published "Public Health Nursing" in 1916. In 1924 she rewrote and published a second edition. Her third edition revised is a complete rewriting. She says in her preface: "The fact that a book on public health nursing has not been able to retain its full usefulness for more than a dozen years is significant, for it means that during the last twenty years public health nursing has been going through a period of extraordinary development."

This new edition portrays these changes in a remarkable way. Whole new chapters have been added, but so many details have been omitted that the additional pages number only forty-four. The reader is referred repeatedly to manuals and other sources for such details.

In the chapters "Later Developments in the United States" and "Public Health Nursing as a World Movement," the author gives us a bird's-eye view of public health nursing today. She gives us a picture of a virile force in world affairs that is not wholly aware of its opportunities and responsibilities, and not always effectively organized. Repeated references are made throughout the book to efforts of self-study or surveys which indicate a healthy skepticism regarding public health nursing and the preparation of public health nurses. One is impressed by the fact that even though there have been many changes we are now in a period of further experimentation in organization and support.

The education of the nurse for public health work has been given fresh emphasis in the entire book but particularly in chapters 8 and 29. This is not new, for in the earlier editions, Miss Gardner laid stress on this very important subject. She faces the many problems of the nurse's education with a different background than formerly and suggests solutions for the problems she presents. The discussion of the teaching function of the nurse has been amplified and certain requisites emphasized.

"Questions of the Day," presents such live points as educational problems, care for the patient of moderate means, the volunteer worker, the community chest and public and private control.

"Public Health Nursing" has been a classic to public health nurses and boards of directors, interested in nursing the community, too long for there to be need to dwell on the importance of this new edition to all workers in the field. To the reviewer there seems to be an additional use for the book, because it has much of value to all nurses. Here is sketched in broad outlines the history of a movement to which not only more than a fourth of the nurses in the country devote their time and interest, but one that has also captured the imagination of many outstanding citizens in every community. It should therefore be found on the shelves of every nursing school library.

The book is written with clarity and with the charm of the earlier editions. The insight which comes from experience in meeting the situations which nurses everywhere face, gives the book universality of interest.

Nurses have always been grateful to Miss Gardner for the inspiration and help of the earlier editions and will now rejoice that she has given them a fresh outlook at so opportune a time.—ALMA E. GAULT, R.N.



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Cutter Creates New Saftiflask Stopper

Recently, Cutter Laboratories, Berkeley, Calif., declared war on the stopper of their own Saftiflask. Hospital technicians had complained. All too frequently, for instance, the connecting tube would be glued in with dried dextrose. Now, Cutter happily announces a greatly improved stopper—they've even tried to glue the tube in with water-glass but report it cannot be done. The new connecting tube grip is a ring of live rubber which expands to let the tube in easily, whether wet or dry; and it contracts to hold the constricted neck of the tube. In a nutshell—the tube goes in easily, it is said, comes out readily, yet will not slip out accidentally.

Opportunity Knocks With Door Closer

Hardware-builder Rixson, 4450 Carroll Avenue, Chicago, has a door check which retires modestly from sight as soon as the door is closed. This new overhead door check, concealing itself within the head frame or transom bar, has other reported features, among them being roller bearings, easily adjustable spring power, double valve control for directing closing speed of the door, automatic hold-open device for use when desired, simplicity of installation, and suitability to wood or metal doors that are hung on butts whether of interior, vestibule or entrance types.

Steam-Escape Down, Sterilizing-Efficiency Up

American Sterilizer Co., Erie, Pa., determines to do something about the steam escape from sterilizers that often results in the ruin of wall and ceiling finish of utility rooms. Introduced this month is the American Excess-Vapor Regulator for all boiling type sterilizers. Besides eliminating objectionable vapor in sterilizing rooms, the device is reported to prevent that wastage of power resulting from the use of more heat than necessary to keep water boiling.

The new regulator has a thermostatic element that is actuated by the vapor in the top part of the sterilizer, coming from water after it begins to boil. When this thermostatic element is heated slightly by this vapor it expands and closes the main steam supply to the sterilizer. Thereafter, the only steam reaching the coil is that conducted through a by-pass, regulated to supply just enough steam to keep the water simmering slowly without creating excess of vapor.

Other points claimed are that the device excludes hand regulation of heat, reduces formation of scale on sterilizer interior and contents, and can be applied easily to existing types of sterilizers.

Coffee Urn, Small and Select

It's sized to suit, this new twin urn by Continental Coffee Co., 371 West Ontario Street, Chicago. Of one, two, three, five or six-gallon capacity, it apparently meets coffee requirements of diet kitchen or nurses' home. And it is attractive with body of black porcelain enamel (or any special color the purchaser prefers), and fittings of chromium plate. The urn is sturdily built, one learns, with features that are foolproof—as the siphon and pivotal water spray and the nondrip faucets. Thermostatic heat control may be added if desired. Further, the entire unit is said to be designed for ease of cleaning.



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New Convenience for Oxygen Therapy

A new oxygen therapy apparatus that, complete with two small cylinders of oxygen, weighs only twenty-eight pounds has just been put on the market by Oxygen Equipment & Service Co., Palmolive Building, Chicago. This apparatus is carried in a compact sturdy case (18" by 12" by 6") and may easily be taken to any part of the hospital or carried in an ambulance. Oxygen may be given either through a nasal catheter or a mask inhaler with an automatic expiratory valve and a rebreathing bag. The rubber mask is easily detachable for sterilization. While the small B size cylinders are the only ones that fit into the case itself, the regular medical size cylinder may be used when the equipment is stationary or it can easily be hooked up to the commercial tanks. An automatic flow indicator by the water displacement method not only shows the flow but also humidifies the oxygen. A safety valve is attached to prevent excess pressure.

Flash About a Fan

Electric-fan-time is now upon us. Forewarned, we discover that Safe-Flex fan of Samson-United Corp., Rochester, N. Y. Safe, they say, because its flexible blades of tough, molded rubber, though rigid enough to deliver a strong current of air, are so soft they prevent injury to careless fingers. And no buzz or hum—the fan is noiseless, it is reported.

Photography in the Service of Medicine

Scanning a recent issue of "Radiography," published by Eastman Kodak Co., Rochester, N. Y., one observes two announcements significant to medical photographers: the one of a 16 mm. Kodachrome film, Type A, the other of a Super Speed Ortho Portrait Safety Film, Anti-Halation.

With the Kodachrome full-color film, said to have sensitivity characteristics making it suitable for use with "Photoflood" lamps, no filter is needed. Elimination of the filter, one learns, gives greatly increased speed so that only one-quarter of the light is required that was necessary previously. With fewer lamps and less heat, full-color motion pictures of operations, gross specimens and skin diseases now are easier to produce, it is stated.

Of the anti-halation type film, these advantages are reported: in copying radiographs it permits brilliant recording of fine details; in close-ups of lesions, etc., it sharply records minute features; in the image of all strongly lighted subjects it eliminates the ordinary blur about the bright areas and gives added brilliance to the entire picture.

Paging New Literature!

Re-discovering Canned Foods—"What's in a can of fruits? Vegetables? Fish?" American Can Co., 230 Park Avenue, New York City, answer by issuing a revised edition of their booklet bearing this title. But about canned foods—this company also issues a handbook answering thirty-seven queries about commercially canned foods, compiled, it is said, because of current misinformation on the subject. Consult the handbook for light on "How long will canned foods keep?" or "Does vitamin content deteriorate on storage?" or "Is there danger from tin in the food?" To delve deeper into any canned food topic that interests you, write this company for a bibliography listing wider readings on the subject specified.

Teamwork Counts with Boilers—From 330 West Forty-second Street, New York City, Permutit Company supplies a new circular describing a three-fold "Internal Boiler Feedwater Treatment Service." Their field men